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PDAM KOTA BANDUNG

PRELIMINARY FINANCIAL FEASIBILITY ANALYSIS OF CIMENTENG INVESTMENT PROPOSAL

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PRELIMINARY FINANCIAL FEASIBILITY ANALYSIS OF CIMENTENG INVESTMENT PROPOSAL

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LIST OF ACRONYMS

ASL	Above Sea Level
BOT	Built-Operate-Transfer
DED	Detail Engineering Design
DSCR	Debt Service Coverage Ratio
ESP	Environmental Services Program
FIFO	First In First Out
IPA	*Instalasi Pengolahan Air* (Water Treatment Plant)
IRR	Internal Rate of Return
Lcd	Liters per capita per day
Lps	Liters per second
NPV	Net Present Value
NRW	Non Revenue Water
PDAM	*Perusahaan Daerah Air Minum* (Municipal Water Supply Enterprise)
PLN	*Perusahaan Listrik Negara* (State Owned Power Company)
PLTA	*Pembangkit Listrik Tenaga Air* (Hydro-Electric Power Plant)
PPP	Public-Private Partnership
RDA	Regional Development Account
Rp	*Rupiah* (Indonesia Currency)
USAID -	United States Agency for International Development
WACC -	Weighted Average Cost of Capital
WTP	Water Treatment Plan

1. INTRODUCTION

PDAM Kota Bandung proposes to reorganize the water supply system from Cisangkuy river by changing the existing old transmission pipeline to deliver water to the southern area of Kota Bandung and to Kabupaten Bandung. The existing old transmission pipeline will be cut in three different locations and reconnected to the new Water Treatment Plant (WTP) Cimenteng at two of those locations. This will disrupt flow to Badaksinga WTP that can be replaced by supply from Dago Bengkok II via new transmission pipelines to the Badaksinga WTP. PDAM Kota Bandung, therefore, proposes to:

1. Construct a 1,100 lps Cimenteng water treatment plant (WTP) at a location about 4 km from the water source (Cisangkuy river).
2. Construct transmission pipelines from PLTA Dago Bengkok II to deliver 600 lps water from Cikapundung river to the current Badaksinga water treatment plant.

While PDAM Kota Bandung planned to self-finance the transmission network from Dago Bengkok II, it would like to conduct the Cimenteng WTP construction under the Built-Operate-Transfer (BOT) arrangement with private sector.

This report presents an assessment of the investment program of PDAM Kota Bandung. Prepared under the auspices of the Environmental Services Program (ESP) funded by the United States Agency for International Development (USAID), it aims to ultimately serve as basis for mobilizing fund under the BOT (Built-Operate-Transfer) mechanism to finance the implementation of the investment proposal. The report examines the feasibility of the investment proposal, and how the investment proposal will affect the future operation of the water enterprise mainly from the financial standpoint.

The report uses as references the following:

1. Audited Financial Statements of PDAM Kota Bandung for the years 2003 and 2004
2. Un-audited results of operation in 2005
3. PDAM Kota Bandung Work Plan for 2006 - 2008

The report can be divided essentially into the following parts:

1. Introduction.
2. Cimenteng Water Treatment Plant Project.
3. Cimenteng WTP Project Financial Highlight.
4. Cimenteng WTP Project and PDAM Performance.
5. Conclusions on the proposed investment program and recommendations on the future operation of the water supply enterprise.

2. CIMENTENG WATER TREATMENT PLANT PROJECT

2.1. CIMENTENG WATER SUPPLY PLAN

PDAM Kota Bandung withdraws water from the Cisangkuy river at the PLN Hydroelectric Plant and transports it by gravity flow through two transmission pipelines (Pipa Baru and Pipa Lama) to Badaksinga WTP where it is blended with water from the Cikapundung river, treated, then distributed to Service Zones designated West, Central-South, and East. PDAM has approval to extract 1,800 L/s from the Cisangkuy River.

PDAM Kota Bandung proposes to reorganize the water supply system from Cisangkuy river by changing the existing Pipa Lama 900 mm transmission pipeline to deliver water to the southern area of Kota Bandung (950 lps) and to Kabupaten Bandung (150 lps). The existing Pipa Baru 850 mm would remain unchanged and continue to deliver water to Badaksinga WTP. Currently the Pipa Lama delivers water (estimated to be 660 lps) to Badaksinga WTP where it is treated before distribution to the service area.

The existing old transmission pipeline will be cut in three different locations and reconnected to the new Cimenteng WTP at two of those locations. This will disrupt flow to Badaksinga WTP that can be replaced by supply from Dago Bengkok II via new transmission pipelines to the Badaksinga WTP.

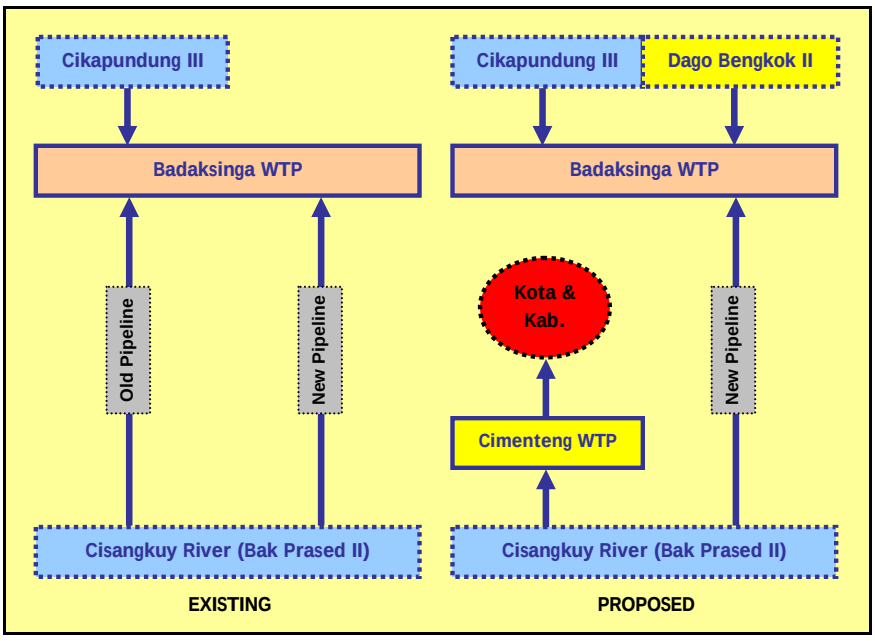

Figure 1 Existing and Proposed System.

Implementing the plan would require a new water treatment facility for the Cisangkuy water. Therefore, PDAM Kota Bandung proposes to:

1. Construct a 1,100 lps Cimenteng water treatment plant (WTP) at a location about 4 km from the water source (Cisangkuy river).
2. Construct transmission pipelines from PLTA Dago Bengkok II to deliver 600 lps water from Cikapundung river to current Badaksinga water treatment plant.

While PDAM Kota Bandung planned to self-finance the transmission network from Dago Bengkok II, it would like to conduct the Cimenteng WTP construction under the Built-Operate-Transfer (BOT) cooperation with private sector.

2.2. PROPOSED BOT PROJECT: CIMENTENG WATER TREATMENT PLANT

This project is a proposed Public-Private Partnership (PPP) transaction in which a private operator, based upon a 20-year take-or-pay contract, will Build-Operate-Transfer (BOT) a new 1,100 liter per second water treatment facility to supply bulk water to the local water utility (PDAM) in Bandung, Indonesia. The PDAM will use its own capital to develop and maintain a distribution system for the water, by making certain changes and improvements to the existing system. The PDAM will also use its own capital to finance the additional 66,000 new connections that will absorb the water to be produced by the new treatment facility.

The private operator will be expected to invest approximately Rp 160 billion for the new plant. The PDAM will also invest significant amount to purchase the land for the new plant, develop the distribution system, and establish the new connections. Revenues to the private operator of the new plant will come from payments made by the PDAM in accordance with an anticipated take-or-pay contract.

The PDAM has water extraction rights up to 1,800 liters per second from the raw water source for the new treatment plant. The source is the Cisangkuy River, which provides a stable volume and flow of water year round sufficient to supply all necessary raw water required by the new treatment plant. The plant will be built near the river, at a height of over 800 meters above sea level, thereby enabling the transmission of water from the new plant into the distribution system to be accomplished primarily by gravity. In addition to supplying the raw water extraction permit, the land for the new facility, the transmission and distribution system for the bulk water, the PDAM will be responsible for obtaining tariff increases and collections on receivables in order to generate revenues necessary for it to comply with its obligations under the take-or-pay contract. It will also arrange for all required environmental clearances.

2.3. TECHNICAL ANALYSIS OF PROPOSED PROJECT

The engineering analysis of this study focused on answering these questions:

1. What treatment is needed at the proposed Cimenteng WTP?
2. Can sufficient volume of water be transmitted by gravity from Cimenteng WTP to the Service Zone (southern part of Kota Bandung)?
3. Will the volume delivered to the Service Zone be adequate to serve the expected population in the year 2015?

2.3.1. SOURCE WATER QUALITY AND TREATMENT

Cisangkuy river is a major tributary of Citarum river. The PDAM intake is about 150 meters downstream of the three PLN Cikalong Hydro-electric Power Plants (PLTA). There is sufficient quantity year-round and water quality is generally good. Cisangkuy water turbidity is on the order of 20 NTU although in November 2005 it was reported to be over 6000 NTU.

Water from Cisangkuy goes to the Badaksinga WTP where it is blended with water from the Sungai Cikapundung. The combined waters are treated by coagulation with poly-aluminum chloride, flocculation, sedimentation, filtration, and disinfection (chlorine gas).

Filters are backwashed by air and water every 24 hours. Sedimentation basin residuals and filter backwash water are discharged to the Sungai Cikapundung. The plant operates 24 hours a day with two shifts, each with 4 operators and one supervisor. There is a water quality laboratory.

IPA Badaksinga design was based on maximum influent turbidity of 200 NTU. With the majority of water from Cisangkuy, the high turbidity of Cikapundung is diluted. However Dago Bengkok connection increases Cikapundung water and disconnecting Pipa Lama decreases Cisangkuy water so the IPA Badaksinga needs modification of the chemical dosing system to treat the increased turbidity, and increased supply from the Sungai Cikapundung requires inlet pipe modifications and a Venturi meter to measure flow.

As soon as possible, PDAM should conduct pilot studies to determine the most cost effective treatment process for Cisangkuy water. The process now used at IPA Badaksinga will work; chemical dosages should be less since the water quality of Cisangkuy is better than that of water from Cikapundung. However there may be differences in chemical composition (alkalinity, hardness); different physical settling characteristics of solids (turbidity); and there may be other suitable treatment methods. All these can be measured by pilot testing. The DED engineer will use results from the pilot studies to specify the treatment process and estimate operating costs, so these studies should start soon.

The exact area of land needed for a water treatment plant depends on the design capacity and the treatment processes. For purposes of locating a suitable site now, it would be reasonable to assume four hectares of land.

2.3.2. HYDRAULIC ANALYSIS

The purpose of this analysis is to determine elevations needed for gravity flow and to confirm delivery of required volumes of water to IPA Badaksinga.

Flows in the transmission pipeline were simulated using EPANET, a computer software program for analyzing the hydraulic and water quality behavior of pressurized pipe networks. The Cisangkuy source and moves to the right to the IPA Badaksinga. The top line is the Pipa Baru, which will continue to transmit water from Cisangkuy to IPA Badaksinga. The bottom line is the Pipa Lama. Valves with short sections of pipe are a fiction created to simulate limitations in water availability, i.e. maximum water from Cisangkuy is 1,800 L/s and maximum water into IPA Badaksinga is 1,400 L/s.

Hydraulic losses in pipelines result from (1) friction of water against the pipe surface and (2) components such as valves, bends, and meters. Pipe friction is function of the interior surface of the pipe and for the Hazen-Williams formula used by EPANET this is expressed as a Roughness Coefficient (C). The higher the value of C, the faster the flow. Pipe interiors deteriorate over time, the C factor decreases, and the volume of water transmitted decreases. C factor can be improved by replacing the pipe or by relining the pipe interior. For this EPANET analysis we assumed old pipe for Pipa Lama and Pipa Baru. Dago Bengkok is a new pipeline so it has a higher value for C.

Friction losses from components are referred to as Minor Hydraulic Losses, and the magnitude depends primarily on the geometrical construction of the component and the impact the construction has on the fluid flow due to change in velocity and cross flow fluid accelerations. The type, size, and location of these components will be determined during DED. So for this EPANET analysis, we used for Pipa Baru the same value (C or K = 48) established during design. For Pipa Lama we assumed the same K factor adjusted for pipe length, i.e. (21 km / 31 km) x 48 = 33.

Various elevations for water supply from IPA Cimenteng were modeled to determine the minimum elevation that provides the specified volume of water by gravity flow at Kilometer 21.2, at the Jalan Tol which is the southern boundary of the proposed Service Zone. Results of this hydraulic analysis show that the elevation for the outlet from IPA Cimenteng clearwell should be close to 790m. Less than this elevation will require pumping.

Table 1 Results from Various Cimenteng WTP Elevations.

Cimenteng WTP Elevation	**Distance from Bak Prased**	**At Km 21.2 (Toll Road)**	**At Km 21.2 (Toll Road)**
(m ASL)	(m)	Head (m ASL)	Pressure (m)*
770	3,700	657	-13
780	3,600	666	-4
790	3,400	675	+5
800	2,400	677	+7

**Negative pressure means pumping is needed*

2.3.3. ENVIRONMENTAL ANALYSIS

The Government of Indonesia requires all development projects be studied to determine potential environmental impacts and to establish suitable mitigating measures. The scope of analysis depends on size and location of the project as shown in the table below. In Indonesia the required documents before a project begins are:

1. AMDAL : Analisis Mengenai Dampak Lingkungan (Environmental Impact Assessment).
2. UKL : Upaya Pengelolaan Lingkungan Hidup (Environmental Management Plan).
3. UPL : Upaya Pemantauan Lingkungan Hidup (Environmental Monitoring Plan).

Table 2 Treshold Criteria for Projects Requiring Environmental Review.

Water Supply	Scale	AMDAL	UKL/UPL
Water Intake from Surface Sources	*Debit*	≥ 250 lps	50 – 250 lps
Piped Transmission Line	*Length*	≥ 10 km	2 – 10 km
Water Treatment Plant	*Production*	....	≥ 50 lps
Distribution Network	*Area Served*	≥ 500 ha	100 – 500 ha

The proposed Cimenteng project involves modifying existing structures and constructing a new IPA. From the table above it appears UKL/UPL for WTP and pipelines will be sufficient. In 2004 PDAM completed UKL/UPL for Dago Bengkok transmission pipeline of capacity 300 lps.

2.4. PROJECTED BULK WATER SUPPLY

The construction process of the 1,100 liter per second Cimenteng water treatment plant (WTP) will begin in 2008 while the operation will start to commence in 2009. The following table 3 shows the amount of bulk water supplied by the Cimenteng WTP to the PDAM Kota Bandung in the period 2009 – 2015.

In 2009, after taking the Non Revenue Water (NRW) of 5% into account, the WTP will supply capacity (bulk water) of 10.9 million m^3 to PDAM Kota Bandung. In 2010, a 21.6 million m^3 of bulk water will be supplied to PDAM. From 2011 on, the WTP will supply a full capacity of 32.9 million m^3 bulk water each year.

Table 3 Bulk Water Supply (lps & 000 m3).

	2009	2010	2011	2012	2013	2014	2015
Production (lps)	367	733	1,100	1,100	1,100	1,100	1,100
Production (000 m^3)	11,574	23,116	34,690	34,690	34,690	34,690	34,690
NRW	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bulk Water (000 m^3)	10,995	21,960	32,955	32,955	32,955	32,955	32,955

3. CIMENTENG PROJECT FINANCIAL HIGHLIGHT

3.1. FINANCIAL BACKGROUND

3.1.1. PROJECT COSTS

The proposed investment program, including all contigencies, will cost an estimated Rp 161.7 billion. The yearly breakdown of the investment costs, all of which will be invested by private operator, is presented in the following table 4.

Table 4 Project Costs – Cimenteng Water Treatment Plant (Rp million).

	2008	2009	2010	Total	% of Total
Water Treatment Plant	45,500	45,500	45,500	136,500	56.28%
Physical Contigencies	4,550	4,550	4,550	13,650	8.44%
Sub-Total	**50,050**	**50,050**	**50,050**	**150,150**	**92.86%**
Financial Contigencies	0	3,754	7,789	11,543	7.14%
Total Project Costs	**50,050**	**53,804**	**57,839**	**161,693**	**100.00%**

3.1.2. FINANCING PLAN

A loan from a domestic commercial bank is proposed to finance 70% or Rp 113.2 billion of the total investment cost. Based on ESP's recent discussions with several commercial banks, the repayment period is assumed to be eight (8) years with 16% annual interest rate. The loan will be disbursed in three tranches with one-year grace period for each tranch. The disbursement of the loan will start simultaneously with the start of the implementation of the investment program in 2008. The rest of 30% or Rp 48.5 billion of the investment costs is to be covered by investor's equity.

Table 5 Financing Plan & Indicative Loan Disbursements (Rp million).

	2008	2009	2010	Total	% of Total
Commercial Loan	35,035	37,663	40,487	113,185	70.00%
Investor's Equity	15,015	16,141	17,352	48,508	30.00%
Total	**50,050**	**53,804**	**57,839**	**161,693**	**100.00%**

3.1.3. COST OF CAPITAL

The cost of capital is computed based on the fund-sourcing mix presented in the financing plan. As mentioned above, the 70% commercial-loan portion will bear an interest of 16.0%, while the 30% portion of investor funds are expected to yield a return on equity of 22.0%. On this basis, the weighted average cost of capital (WACC) is 17.8%, as shown in table 6.

Table 6 Weighted Average Cost of Capital (%).

	Loan	Equity	Total
Weight	70.00%	30.00%	100.00%
Cost of Capital	16.00%	22.00%	
WACC	**11.20%**	**6.60%**	**17.80%**

3.1.4. RECURRENT COSTS

Recurrent costs consist of cost of raw water, personnel, electricity, chemicals, maintenance, and overhead. These costs are adjusted for annual inflation of 7.50%. Assumptions on reccurent cost are as follow:

1. *Raw water*: Raw water costs are paid to the local government for extracting water from its source. These costs are expected to be Rp 35/m^3 in 2009.
2. *Personnel*: Number of personnel employed is 13 persons. The average annual salary per person is estimated to be Rp 44.4 million in 2009.
3. *Electricity and Chemical*: Distortion in the prices of electricity and chemicals are expected to be gradually corrected during the next few years. Annual increase in electricity and chemical costs is set at 7.5% repectively.
4. *Maintenance*: These costs are fixed proportion of fixed assets. It is assumed to be 1% of fixed assets annually.
5. *Overhead*: These are defined as general and administrative expenses minus wages, interest payment, bad debt allowances, maintenance, and depreciation costs related to G & A fixed assets. This cost is assumed to be 25% of personnel costs.

3.1.5. DEBT SERVICE

The repayment period will start in 2009 up to 2018. Table7 shows the debt repayment for 2009 - 2015 period. In 2018, the project will pay debt service of Rp 6,340 million, consist of Rp 5,466 million principal payment, and Rp 874 million interest charges.

Table 7 Base Case: Debt Service Schedule (Rp million).

	2009	2010	2011	2012	2013	2014	2015
Principal	4,730	9,814	15,280	15,280	15,280	15,280	15,280
Interest	6,054	11,805	17,231	14,787	12,342	9,897	7,452
Debt Service	**10,784**	**21,619**	**32,511**	**30,067**	**27,622**	**25,177**	**22,732**
DSCR	**1.25**	**1.35**	**1.44**	**1.61**	**1.82**	**2.07**	**2.38**

3.2. PROJECT'S FINANCIAL PERFORMANCE

3.2.1. BULK WATER TARIFF AND FEASIBILITY INDICATORS

The cooperation between PDAM Kota Bandung and private operator will be on a "Take-or-Pay" contract basis on the available capacity. This means that PDAM Kota Bandung is obligated to pay the operator for the capacity supplied, even if it fails to take actual delivery of the full bulk water capacity. This provision is designed to mitigate risk to the investor. In order to achieve the required minimum investor's IRR of 22.00%, and to keep debt service coverage ratio at the minimum level of 1.25, the bulk water tariff in year 2009 is projected to be Rp 1,570/m^3. A minimum 4.20% annual tariff increase will be enough to come up with an investor's IRR of 22.07%, as summarized in two following tables. Table 8 shows the yearly bulk water tariff per m^3 for the period 2009 - 2015.

Table 8 Base Case: Bulk Water Tariff (Rp/m3).

	2009	2010	2011	2012	2013	2014	2015
BW Tariff Increase	0.00%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%
Bulk Water Tariff	1,570	1,636	1,705	1,776	1,851	1,929	2,010

Based on the foregoing assumptions, the Cimenteng WTP project is found to be feasible with a positive project's net present value (NPV) of Rp 6.4 billion and a project's internal rate of return (IRR) of 18.55%, which is above the hurdle rate of 17.80%. The project also produces a 22.07% of investor's IRR, as shown in table 9. It does not surmount, however, the other sensitivity test of a 10% increase in investment costs. In this case, the project's IRR dips below the WACC and NPV becomes negative. The bulk water tariff will then have to be adjusted upward in accordance with table 10 below.

Table 9 Feasibility Indicators (WACC: 17.80%).

	Project's NPV	Project's IRR	Investor's IRR
Base Case	Rp 6.4 billion	18.55%	22.07%
10% Increase in Investment	Rp -14.4 billion	16.25%	19.51%
10% Increase in Investment (With Adjusted Tariff)	Rp 5.1 billion	18.35%	22.03%

Because the contract for bulk water supply should be tendered out on a fixed price, fixed schedule contract, the investor should consider the risk that engineering and construction costs may be about 10% higher than what is assumed in these calculations. On that basis, in order to maintain the minimum investor's IRR of 22.00%, the bulk water tariffs for alternative construction and engineering costs, with associated minimum 4.10% annual tariff increase, would look as shown in the following table.

Table 10 10% Increase in Investment: Bulk Water Tariff (Rp/m3).

	2009	2010	2011	2012	2013	2014	2015
BW Tariff Increase	0.00%	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%
Bulk Water Tariff	1,700	1,770	1,842	1,918	1,996	2,078	2,163

3.2.2. INCOME STATEMENT

As presented in the following table, the income statement projection shows positive earning after tax generation for the period 2009 – 2015. Gross profit margin, ranging from 75.50% to 83.15%, and net profit margin, which is ranging from 17.52% to 48.03%, demonstrate strong project's ability in generating income. The project also produces strong average Return on Asset (ROA) of around 31% throughout the entire project's lifetime, from 2009 to 2027.

Table 11 Base Case: Project's Income Statement (Rp million).

	2009	2010	2011	2012	2013	2014	2015
Tariff Revenue	**17,262**	**35,925**	**56,177**	**58,536**	**60,995**	**63,557**	**66,226**
O&M	3,785	6,741	9,466	10,055	10,688	11,368	12,099
Gross Profit	**13,477**	**29,184**	**46,711**	**48,482**	**50,307**	**52,189**	**54,127**
Depr. & Amort.	3,103	6,439	10,025	10,025	10,025	10,025	10,025
EBIT	**10,374**	**22,745**	**36,686**	**38,457**	**40,282**	**42,164**	**44,102**
Interest	6,054	11,805	17,231	14,787	12,342	9,897	7,452
EBT	**4,320**	**10,940**	**19,455**	**23,670**	**27,941**	**32,267**	**36,650**
Tax	1,296	3,282	5,836	7,101	8,382	9,680	10,995
Net Income	**3,024**	**7,658**	**13,618**	**16,569**	**19,558**	**22,587**	**25,655**
Gross Profit Margin	78.07%	81.24%	83.15%	82.82%	82.48%	82.11%	81.73%
Net Profit Margin	17.52%	21.32%	24.24%	28.31%	32.07%	35.54%	38.74%
Return On Assets	2.79%	4.61%	8.50%	10.83%	13.41%	16.27%	19.42%

3.2.3. BALANCE SHEET

Capital expenditures are forecast to be completed in 2010. Depreciation is calculated on the useful life basis with straight line method. Capitalized interests are treated as deferred expenses and amortized on the outstanding balance throughout the project period. Balance sheet projections assume 30-day account receivables, and 30-day account payables. The inventory point for chemicals and maintenance materials is 30 days. A sharp increase in cash is foreseen, from only 0.42 months of operating expenses in 2009 to 32.50 months in 2027. The highlights of the balance sheet, from 2008 to 2014, are presented in table 13.

Table 12 Base Case: Project's Balance Sheet (Rp million).

	2008	2009	2010	2011	2012	2013	2014
Cash	0	133	1,818	4,185	6,698	9,370	12,212
Other Cur. Assets	0	1,490	3,106	4,864	5,077	5,299	5,531
Current Assets	0	1,623	4,924	9,049	11,775	14,669	17,743
Fixed Assets	5,050	101,101	153,228	144,335	135,442	126,549	117,656
Other Assets	2,803	5,465	7,977	6,846	5,714	4,582	3,450
Total Assets	**52,853**	**108,189**	**166,130**	**160,230**	**152,931**	**145,800**	**138,849**
Current Debt	0	226	421	645	694	746	801
Long Term Debt	37,838	73,784	107,696	92,416	77,136	61,856	46,576
Equity	15,015	34,180	58,013	67,169	75,101	83,198	91,471
Total Debt & Equity	**52,853**	**108,189**	**166,130**	**160,230**	**152,931**	**145,800**	**138,849**
Current Ratio	0.00	7.19	11.69	14.03	16.98	19.68	22.14
Cash = Months of O&M	0.00	0.42	3.24	5.30	7.99	10.52	12.89

3.2.4. CASH FLOW STATEMENT

The project enjoys positive annual cash flows throughout the projection period. DSCR will remain at an increasing level starting at 1.25 in 2009 and reaching 9.51 in 2018. A summary of the project's cashflow statement is presented in the next table.

Table 13 Base Case: Project's Cashflow Statement (Rp million).

	2008	2009	2010	2011	2012	2013	2014
Operational Cashflow	**0**	**10,916**	**24,482**	**39,340**	**41,216**	**41,755**	**42,333**
Ops. Income	0	13,477	29,184	46,711	48,482	50,307	52,189
Net Working Capital	0	-1,264	-1,420	-1,534	-164	-170	-176
Corporate Tax	0	-1,296	-3,282	-5,836	-7,101	-8,382	-9,680
Investment Cashflow	**-50,050**	**-53,804**	**-57,839**	**0**	**0**	**0**	**0**
Capital Expenditure	-50,050	-53,804	-57,839	0	0	0	0
Financial Cashflow	**50,050**	**43,020**	**35,043**	**-36,397**	**-38,703**	**-39,083**	**-39,491**
Equity	15,015	16,141	17,352	0	0	0	0
Loan	35,035	37,663	40,487	0	0	0	0
Debt Service	0	-10,784	-21,620	-32,511	-30,067	-27,622	-25,177
Dividend Payments	0	0	-1,177	-4,462	-8,636	-11,461	-14,314
Net Cashflow	**0**	**133**	**1,685**	**2,367**	**2,514**	**2,672**	**2,842**
Beginning Cash	**0**	**0**	**133**	**1,818**	**4,185**	**6,698**	**9,370**
Ending Cash	**0**	**133**	**1,818**	**4,185**	**6,698**	**9,370**	**12,212**
DSCR	0.00	1.25	1.35	1.44	1.61	1.82	2.07

4. CIMENTENG WTP AND PDAM PERFORMANCE

4.1. GENERAL PROFILE OF PDAM SERVICE AREA

Kota Bandung, the capital of Propinsi Jawa Barat, is located in the Priangan highlands about 190 kilometers southeast of Jakarta. Kota Bandung consists of 26 Kecamatan (sub-district) divided into 139 Kelurahan (sub sub district). It has a land area of 16,729.50 km² and a population of 2.23 million (year 2004), with population growth of 2.0%. This is a population density of 134 people per hectare, however taking into consideration that only 60% of the land is occupied by housing, the density is actually about 220.

Topographically the northern part of the Kota is mountainous and the southern part relatively flat. Elevations of the Kota range from 1050 meters above sea level (ASL) in the north to 675 meters ASL in the south. The city center is about 770 m ASL.

4.2. PDAM TECHNICAL PERFORMANCE

4.2.1. PRODUCTION, CONNECTIONS, AND DEMAND

Currently PDAM Kota Bandung operates with a 2,571 lps production capacity with three major water sources, which are spring, ground water, and surface water (river). 87% or 2,230 lps of the capacity comes from surface water intake, and only 7% (177 lps) and 6% (164 lps) come from spring and ground water, respectively.

Table 14 Connections and Employees

	Percentage	**2003**	**2004**	**2005**	**% Change ('03–'05)**
Social Customers	*1.61%*	2,200	2,419	2,286	*3.91%*
Household & Gov't	*90.09%*	130,298	129,177	127,791	*-1.92%*
Commercial	*7.99%*	10,711	11,158	12,467	*16.39%*
Industrial	*0.32%*	459	440	458	*-0.22%*
Total Connections	***100.00%***	**143,669**	**143,195**	**143,003**	***-0.46%***
% Change			*-0.33%*	*-0.13%*	
Number of Employees		935	935	935	*0.00%*
Employees/1000 Conn.		7	7	7	

During the last 3-year period (2003-2005) the total number of connections for clean water service declined over 0.46%, from 143,669 in Year 2003 to 142,003 in Year 2005. This resulted from a PDAM program of cutting off service to connections that failed to pay on a timely basis. This particulary impacted household and industry customers. Household connections declined over 1.92% during the period, and industrial connections declined over 0.22% over the period. The number of commercial customer connections increased each year during the period 2003-2005, increasing by 4.17% in Year 2004 and 11.73% in Year 2005.

The total number of PDAM employees in 2005 was 935. This number has remained stable from Year 2003 through Year 2005. The number of employees per 1,000 connections also remained stable at 7 for the 3-year period, as indicated in Table 14 above. This figure indicates that the PDAM is appropriately monitoring employee performance, with the result that the number of employees per 1,000 connections remains within prevailing industry standards.

Table 15 Number of Water Sold (000 m³).

Social Customers	**Percentage**	**2003**	**2004**	**2005**	**% Change ('03–'05)**
Household & Gov't	*5.0%*	1,878	1,778	1,700	*-9.45%*
Commercial	*83.0%*	28,456	27,508	28,063	*-1.38%*
Industrial	*11.0%*	3,381	3,613	4,002	*18.36%*
Total Water Sales	*1.0%*	377	391	351	*-6.95%*
% Change	***100.0%***	**34,092**	**33,290**	**34,116**	***0.07%***

While total number of connections declined slightly over the period 2003-2005, total water sales rose slightly at over 0.07% for the period. This overall increase was the result of a steady rise in consumption by commercial customers (11% of total consumption) in the period, an increase of 18.36% overall.

Prior to Cimenteng WTP commencement, as part of PDAM improvement plans, PDAM expects to have 1,000 additional connections each year over period 2006–2008. This improvement plans include non revenue water reduction program assisted by ESP's Service Delivery. Cimenteng WTP was built to serve around 60,000 potential new connections and 20,000 existing connections in southern part of Bandung. Once it commences in 2009, it will supply additional capacity to PDAM by around 11 million m³ in 2009, 22 million m³ in 2010, and 33 million m³ yearly over 2011–2015.

Table 16 Additional Capacity (000 m³), Water Sold (000 m³), Connections.

	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Additional Capacity	0	0	0	10,995	21,960	32,955	32,955
Total Water Sold	34,352	34,572	34,792	36,193	38,456	40,652	42,848
Total Connections	144,003	145,003	146,003	152,003	162,003	172,003	182,003

With additional capacity, PDAM will be able to increase its connection by 6,000 in 2009, and by 10,000 annually over the period 2010–2015. As the capacity increased from Cimenteng WTP operation, and the non revenue water reduced by 2% or 3% a year, the water sales will rise by around 4% - 6% each year throughout 2009–2015. In order to keep the number

of employee per 1,000 connections ratio at 7 or 6, PDAM should have additional personnel by 2011.

4.3. FINANCIAL PERFORMANCE

4.3.1. REVENUES

As Table 17 below indicates, water revenues represent nearly 78% of total operating income. Income from wastewater treatment represents nearly 19% of total operating income, and the remaining income of just over 3% is derived from non-water revenues, which are derived from fees charged for new connections, maintenance charges, meter rentals, reconnection fees, etc. Income from wastewater treatment was accounted for 30% of water income.

Table 17 also shows the trend of total operating income generated by water, non-water, and wastewater revenues over the period 2003-2005. As the number of water sold (in m^3) only grew by a small 0.07% in 2003–2005, water revenues and operating revenues only increased by 1% and 1.75% over the period. There was a significant increase of 14.02% in non-water revenues over the period 2003–2005. As the number of connection keep dropping throughout the period, the increase in non-water revenues were coming from other than new connection fees such as penalties, maintenance charges, etc.

Table 17 Operating Revenues (Rp million).

	Percentage	**2003**	**2004**	**2005**	**% Change ('03–'05)**
Water Revenues	*77.89%*	68,018	67,993	68,700	*1.00%*
Non Water Revenues	*3.23%*	2,618	2,882	2,984	*14.02%*
Wastewater Revenues	*18.88%*	16,406	16,346	16,880	*2.89%*
Operating Revenues	***100.00%***	**87,042**	**87,221**	**88,564**	***1.75%***
% Change			*0.21%*	*1.54%*	

The breakdown of total water revenues into tariff revenues and fixed charges revenues is presented in table 18. The water tariff revenues rose by 1.56% from 2004 to 2005, while total revenues for water increased by 1.04% during the same period. Both of these changes were greater than the changes during the period 2003 to 2004. This was a result of the reclassification of tariff categories done by PDAM during Year 2005.

Table 18 Water Revenues (Rp million).

	Percentage	**2003**	**2004**	**2005**	**% Change ('03–'05)**
Tariff Revenues	*78.45%*	53,226	53,272	54,104	*1.65%*
Fixed Charges Revenues	*21.55%*	14,792	14,721	14,596	*-1.32%*
Total Water Revenues	***100.00%***	**68,018**	**67,993**	**68,700**	***1.00%***
Change in Tariff Revenues			*0.09%*	*1.56%*	

	Percentage	2003	2004	2005	% Change ('03–'05)
Change in Fixed Charges			*-0.48%*	*-0.85%*	
Change in Water Revenues			*-0.04%*	*1.04%*	

Average operating income per cubic meter of water sold, and average water tariff per cubic meter declined in Year 2005. As can be seen in table19 below, the decline from the previous year was 0.92% for average operating income and 1.37% for average water tariff.

Table 19 Average Operating Income and Clean Water Revenues (Rp/m³).

	2003	2004	2005	% Change ('03–'05)
Average Operating Income	2,553	2,620	2,596	*1.68%*
% Change		*2.62%*	*-0.92%*	
Average Water Tariff	1,995	2,042	2,014	*0.93%*
% Change		*2.36%*	*-1.37%*	

Anticipating its investment programs implementation for Dago Bengkok II, Cimenteng WTP preparation, new connections, and long term debt repayment, PDAM planned to have average tariff increase of 51% in 2006. PDAM also wished to have fixed charges adjustment in 2006. These tariff and fixed charges adjustment plans have been approved by both PDAM's Supervisory Board, and PEMDA (local government). This tariff adjustment will increase PDAM's water revenue by 39% in 2006. Overall, in 2006, PDAM's operating income will increase by 35% due to this tariff and fixed charges adjustments. In order to cope with bulk water tariff set by the Cimenteng WTP operator, and to reach the level of full cost recovery operation, PDAM will need to have another tariff increase in 2008, 2010, and 2012.

Table 20 Operating Revenues 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Water Revenues	95,620	109,823	123,376	129,411	154,003	164,276	182,445
Non Water Revenues	3,391	3,746	4,084	9,235	13,850	14,107	14,561
Wastewater Revenues	20,391	24,595	28,603	30,068	36,870	39,376	44,250
Operating Revenues	**119,402**	**138,164**	**156,063**	**168,714**	**204,723**	**217,759**	**241,256**

As Cimenteng WTP gradually becomes operational, starting in 2009, PDAM will have more water to sell, thus more connections. Non water revenues coming from new connection fees will increase significantly in 2009. PDAM's operating and water revenues throughout 2009-2015 are presented in the table above. PDAM has the potential to further improve its revenue out of Cimenteng WTP supply by significantly reducing non revenue water/water loss.

4.3.2. RECURRENT COSTS

Operating and maintenance expenses, and their components, are shown in table 20 below. Below those figures are financial expenses, divided into the principal and interest components of PDAM's debt service obligations. At 37.98% direct labor represents the

largest expense componend of O&M costs. The second highest category of total expenses is the loan principal repayment component of financial costs, which are 12.42% of total cash expenses. Principal payment declined slightly over the period, reflecting a failure to make some loan payments. The next highest category of expenses is bad debt expense, at 11.31% of total operating expenses.

In general, PDAM has been able to limit O&M expenses growth in 2005. These expenses only grew by 0.21% in 2005, smaller than that in 2004. This was trigerred by declined growth of labor, electricity, and bad debt expenses. Bad debts expense declined 44.62% over 2003-2005 period. This was the result of write-offs done by the PDAM in accordance with Surat Pemberitahuan Tunggakan-nya. This decline in bad debts expense helped to offset the substantial 62.34% increase in G&A expenses over the period, the 36.20% increase in chemicals costs, a 28.71% increase in transmission and distribution costs, a 17.25% increase in direct labor costs, and a 17.00% increase in electricity.

Total O&M costs for the period 2003-2005 increased by 16.33%, driven mostly by the large increase in 2004. This increase is far larger than the related changes in water revenues and water tariffs for the same period, which actually declined rather than increased. A 62.34% increase in G&A expenses, as shown in the table below, indicates that G&A costs need to come under better control or increases in O&M costs will continue to outpace tariff increases.

Table 21 Operating Expenses Including Debt Service Per m³ Water Sold (Rp/m³).

	Percentage	**2003**	**2004**	**2005**	**% Change ('03–'05)**
Direct Labor	37.98%	755	857	886	*17.25%*
Electricity	5.30%	103	126	120	*17.00%*
Chemicals	4.94%	97	94	133	*36.20%*
Maintenance	9.13%	220	95	283	*28.71%*
G&A Expenses	9.39%	164	188	266	*62.34%*
Bad Debt Expense	11.31%	201	435	111	*-44.62%*
Raw Water	1.24%	29	26	27	*-7.98%*
Total O&M Costs	**79.29%**	**1,569**	**1,822**	**1,825**	***16.33%***
% Change			*16.09%*	*0.21%*	
Interest Expenses	8.29%	180	188	177	*-1.90%*
Principal Payment	12.42%	383	231	198	*-48.44%*
Total Expenses	**100.00%**	**2,132**	**2,240**	**2,200**	***3.16%***
% Change			*5.05%*	*-1.80%*	

The increase in chemical costs of 36.20% over the period 2003-2005 was caused by a number of factors, including a decline in the quality of raw water. Another important factor is that most chemicals are imported. In 2005, the cost of chemicals rose by 41.40% and that large increase can be largely attributed to a major adjustment in the exchange rate during that year.

There was a dramatic drop in maintenance costs of 56.90% from 2003 to 2004, followed by an even more dramatic increase of 198.62% from 2004 to 2005, yielding on average an increase of 28.71% for the period 2003-2005. The relatively low cost in 2004 reflected lack of adequate expenditure for maintenance of the system. The dramatic rise in the following year reflects PDAM management's decision to make major expenditures to improve the existing system and improve the system through the installation of new components.

Labor costs increased 17.25% over the 2003-2005 period, caused by a salary adjustment in year 2004. Electricity costs increased by a similar amount, 17.00% over the period. This was caused by an upward adjustment of the base tariff for electricity.

Table 22 Average Water Tariff and Costs Per m³ Water Sold (Rp/m³).

	2003	2004	2005	% of Tariff '03	% of Tariff '04	% of Tariff '05
Average Water Tariff	**1,995**	**2,042**	**2,014**			
Direct Labor	755	857	886	*37.85%*	*41.97%*	*43.99%*
Electricity	103	126	120	*5.16%*	*6.17%*	*5.96%*
Chemicals	97	94	133	*4.86%*	*4.60%*	*6.60%*
Maintenance	220	95	283	*11.03%*	*4.65%*	*14.05%*
G&A Expenses	164	188	266	*8.22%*	*9.21%*	*13.21%*
Bad Debt Expense	201	435	111	*10.08%*	*21.30%*	*5.51%*
Raw Water	29	26	27	*1.45%*	*1.27%*	*1.34%*
Total O&M Costs	**1,569**	**1,822**	**1,825**	***78.65%***	***89.23%***	***90.62%***
Loan Interest	180	188	177	*9.02%*	*9.21%*	*8.79%*
Loan Principal	383	231	198	*19.20%*	*11.31%*	*9.83%*
Expenses (Incl. Debt Service)	**2,132**	**2,240**	**2,200**	***106.87%***	***109.70%***	***109.24%***

The table 21 shows the relationship between average O&M costs, average water tariffs, and average financial costs per cubic meter water sold. The table shows that total expenses per cubic meter of water sold (including debt service) has been consistently higher than the average water tariffs. In 2003, average water tariff could only cover 93.6% of total expenses, including debt service, per unit water sold. In 2004 and 2005, average water tariff covered 91.2% and 91.5%, respectively, of total expenses. Those figures could have been lower if the PDAM paid the full amount of its debt service. The situation has made PDAM unable to undertake major rehabilitation plan for its old distribution network.

Table 23 Recurrent Expenditures Including Debt Service Per Unit Water Sold 2006-2012 (Rp/m³).

	2006	2007	2008	2009	2010	2011	2012
Direct Labor	932	982	1,034	1,054	1,051	1,054	1,060
Electricity	125	124	130	125	123	117	116
Chemicals	142	151	162	167	169	172	175
Maintenance	289	288	308	318	319	325	330
G&A Expenses	270	285	300	306	305	306	308
Bad Debt Expense	158	190	219	222	256	258	275
Raw Water	28	30	32	33	34	34	35

	2006	2007	2008	2009	2010	2011	2012
Cimenteng Bulk Water	0	0	0	477	934	1,382	1,366
Total O&M Costs	**1,946**	**2,051**	**2,186**	**2,702**	**3,192**	**3,648**	**3,666**
Interest	493	449	405	351	293	243	197
Principal	513	510	507	487	458	434	411
Expenses (Incl. DS)	**2,952**	**3,009**	**3,098**	**3,539**	**3,944**	**4,325**	**4,275**

In the period 2006-2008, O&M costs per cubic meter water sold will have annual average growth of 6%. As the Cimenteng WTP becomes operational in 2009, PDAM will have to pay for the capacity supplied by the WTP. Therefore, as indicated by table 22, there will be a significant increase of 24% in O&M costs in year 2009.

4.3.3. ACCOUNTS RECEIVABLES AND CURRENT RATIO

As can be seen from table 24 below, collecion performance of PDAM has improved over the period 2003-2005. Improvement in efficiency of collection is reflected by the 34.91% decline in total days of collection during the period, from 225 in 2003 to 147 in 2005, though there was a spike up to 960 days in 2004. The amount of bad debt expense per cubic meter of water sold also declined, by 44.62% for the same period. Overall accounts receivable per cubic meter of water sold also declined, by 27.21% over the 2003-2005 period.

Table 24 Collection Efficiency and Current Ratio.

	2003	2004	2005	% Change ('03 – '05)
Total Days of Collection	225	960	147	*-34.91%*
Bad Debt Expense (Rp/m³)	201	435	111	*-44.62%*
Current Ratio	2.2	0.9	1.8	*-22.10%*

Despite the improved collection efficiency, the current ratio for PDAM declined by 22.10% over the period 2003-2005. The ratio fell in 2004 from 2.25 to 0.92. PDAM managed to increase the ratio by 90% in 2005, and pull it back to 1.75. Table 25 shows that current ratio will decline and reach the lowest level of 0.8 in 2009, just when PDAM starts to buy water from Cimenteng WTP. It will then rise again to 0.9 in 2010 as PDAM adjusts the tariff and hit the level of 1.2 in 2012.

Table 25 Collection Efficiency and Current Rati0 2006-2012.

	2006	2007	2008	2009	2010	2011	2012
Days of Collection	98	93	90	90	87	87	86
Bad Debt (Rp/m³)	158	190	219	222	256	258	275
Current Ratio	1.6	1.1	1.0	0.8	0.9	0.9	1.2

4.3.4. LONG TERM DEBT AND DEBT SERVICE

According to the most recent audited financial statements, PDAM's total outstanding loans were Rp 327.8 billion as of December 31, 2005, including arrears. Within this total, Rp 211.5 billion relates to clean water activities and Rp 116.3 billion relates to wastewater activities.

Principal owed as of December 31, 2005 totalled Rp 167.4 billion. Table 26 below provides a profile of the debt situation and its trends over the period 2003-2005.

Table 26 PDAM Loan Obligations (Rp Billion) and Debt Service Coverage Ratio (DSCR).

	2003	2004	2005	% Change ('03 – '05)
Interest	106.4	88.6	160.4	*50.75%*
Principal	137.2	130.5	167.4	*22.01%*
Total Interest & Principal	**243.6**	**219.1**	**327.8**	***34.57%***
% Change Interest		*-10.06%*	*49.64%*	
% Change Principal		*-4.83%*	*28.28%*	
Debt Service Coverage Ratio	1.75	2.19	2.19	*25.14%*
% Change		*25.14%*	*0.00%*	

The interest balance declined by 10.06% in 2004, reflecting principal payments only made by the PDAM, but increased by 49.64% in 2005. Interest rates of outstanding debt range from 6% to 9% per year, with terms reaching up to Year 2017. The principal balance includes capitalized interest, penalties, commitment fees, loan administration fees. The debt service coverage ratio (DSCR) looked good, increased from 1.75 in 2003 to 2.19 in 2005. However, it was because PDAM has not been fully paying its debt, and the DSCR ratio was counted based on the actual amount that has been paid by PDAM and not on the amount that was supposed to be paid.

PDAM needs to have some of its debt restructured. In fact, the PDAM is taking action to have some of its debt either restructured or rescheduled. It has made a request to the Ministry of Finance for conducting the debt restructuring. There has been no reply yet from the MOF. Meanwhile, starting from 2006, PDAM plans to fully pay its debt, including related arrears. PDAM's debt service for its clean water division over 2006-2012 period would look like presented in the following table.

Table 27 Total Debt Service 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Principal	27,316	27,316	27,316	27,316	27,316	27,316	27,316
Interest	26,224	24,038	21,853	19,668	17,482	15,297	13,112
Total Debt Service	**53,540**	**51,355**	**49,170**	**46,984**	**44,799**	**42,614**	**40,428**

Table 28 Debt Service for Clean Water Division 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Principal	17,628	17,628	17,628	17,628	17,628	17,628	17,628
Interest	16,923	15,513	14,103	12,692	11,282	9,872	8,462
Total Debt Service	**34,551**	**33,141**	**31,731**	**30,321**	**28,910**	**27,500**	**26,090**

4.3.5. TARIFF

The tariff structure for PDAM Kota Bandung has 4 water consumption blocks, and 4 categories of consumers, as seen herein below. Social connections are for general public use, such as public water facilities. Category II is households, with separate categories depending on the size of the house. Both commercial and industrial consumers are divided in to large and small sub-categories.

Table 29 Tariffs by Category and Level of Consumption (Rp/m3).

	0 – 10 m^3	**11 – 20 m^3**	**21 – 30 m^3**	**> 30 m^3**
Category I				
Social-General 1A	560	560	560	560
Social-Special 1B	560	560	875	1,225
Category II				
Household 2A1	560	875	1,225	1,750
Household 2A2	700	1,225	1,750	2,450
Household 2A3	875	1,400	2,100	2,975
Household 2A4	1,050	1,750	2,625	3,500
Government Offices 2B	700	1,225	1,750	2,450
Category III				
Commercial-Small 3A	1,050	1,750	2,625	3,500
Commercial-Large 3B	1,400	2,100	2,975	3,850
Category IV				
Industry-Small 4A	1,750	2,450	3,325	4,375
Industry-Large 4B	2,100	2,800	3,675	4,725

A decree of the Minister of Home Affairs (Permendagri 2/1998) stipulates annual tariff adjustments to compensate for annual inflation, without the need for an approval from the local legislative council, plus a cyclical adjustment when significant additional investment is required. The methodology produces three types of tariff categories:

1. *Tarif Biaya Rendah* (low cost tariff), which recovers only O&M (including salaries) and overhead costs.
2. *Tarif Biaya Dasar* (basic cost tariff), which recovers *biaya rendah* plus debt service (principal and interest).
3. *Tarif Biaya Penuh* (full cost tariff), which recovers *biaya rendah* plus depreciation on the economic (useful) life factor applied against revalued fixed assets plus a 10% return on the book value of revalued assets.

With the kind of tariff structure shown above, PDAM average tariff increased by 0.93% from Rp 1,995/m^3 in 2003 to Rp 2,014/m^3 in 2005. Table 30 below shows that the average tariff has been consistently lower than the full cost tariff over the period 2003-2005. It has covered only 73% of full cost tariff, and only 68% of accounting costs in 2005.

Table 30 Average Tariffs and Costs Per m³ Water Sold (Rp/m³).

	2003	2004	2005	Increase	Tariff/Cost '05
Average Tariff	1,995	2,042	2,014	*0.93%*	
Low Cost Tariff	1,569	1,822	1,825	*16.32%*	*110.36%*
Basic Cost Tariff	1,952	2,052	2,023	*3.64%*	*99.56%*
Full Cost Tariff	2,273	2,539	2,759	*21.38%*	*73.00%*
Accounting Costs	2,656	2,770	2,956	*11.29%*	*68.13%*

As mentioned before, in anticipating its O&M costs, investment programs implementation for Dago Bengkok II, Cimenteng WTP preparation, new connections, and long term debt repayment, PDAM planned to have average tariff increase of 51% in 2006. PDAM would also adjust the fixed charge from the old Rp 8,400 per connection to Rp 16,000 per connection. These tariff and fixed charge adjustment plans have been approved by PDAM's Supervisory Board and by PEMDA. The new tariff structure in 2006 would like as seen in the following table.

Table 31 Proposal on New Tariff Structure (Rp/m3).

	0 – 10 m³	11 – 20 m³	> 20 m³
Group I			
Social-General 1A	560	560	560
Social-Special 1B	560	560	875
Group II			
Household 2A1	560	875	1,225
Household 2A2	1,075	1,900	2,700
Household 2A3	1,350	2,150	3,250
Household 2A4	1,600	2,700	4,075
Government Offices 2B	1,075	1,875	2,700
Group III			
Commercial-Small 3A	1,625	2,725	4,100
Commercial-Large 3B	2,100	3,175	4,550
Group IV			
Industry-Small 4A	2,600	3,675	5,000
Industry-Large 4B	3,125	4,200	5,550

In order to cope with payment for bulk water supplied by Cimenteng WTP and to keep its operation in the level of full cost recovery, PDAM needs to have another average tariff adjustment of at least 17.5% in 2008, 17.5% in 2010, and at least 7.5% in 2012.

4.4. PROJECTED PDAM FINANCIAL STATEMENTS

4.4.1. PROJECTED INCOME STATEMENT

Table 32 below presents the projected income statement for PDAM Kota Bandung, after taking Cimenteng WTP project into account. Over 78% of operating income comes from clean water sales. Non-water revenues represent only 3% of total operating revenues, and revenues from wastewater treatment are about 19% of total operating revenues.

Table 32 Projected Income Statement 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Water Revenues	95620	109,823	123,376	129,411	154,003	164,276	182,445
Non Water Revenues	3,391	3,746	4,084	9,235	13,850	14,107	14,561
Wastewater Revenues	20,391	24,595	28,603	30,069	36,870	39,376	44,250
Operating Revenues	119,402	138,164	156,063	168,715	204,723	217,759	241,256
Operating Expenses	71,522	75,859	81,381	103,416	128,836	154,769	163,986
Non Operating Expenses	1,037	1,138	1,221	1,551	1,933	2,322	2,460
Net Profit Before Tax	16,484	33,060	47,540	39,558	52,331	41,114	57,678
Income Tax	4,937	9,909	14,253	11,859	15,691	12,325	17,295
Net Income	**11,548**	**23,150**	**33,287**	**27,699**	**36,641**	**28,788**	**40,383**
ROI	4.3%	8.3%	11.1%	8.6%	10.6%	7.8%	10.3%
Current Ratio	1.6	1.1	1.0	0.8	0.9	0.9	1.2
DSCR	0.8	1.1	1.4	1.3	1.6	1.3	1.8

Both revenues and net income after taxes rise steadily as the Cimentend project gradually comes into production, and as tariff adjustment effectively. The return on investment (ROI) starts out below because of heavy investing in the early years, but gradually rises up and through the period presented. Current ratio starts above the minimum targeted figure, then dips below 1.0 as liquid assets are strained by the rising demands of the new project, then start increasing again until they pass through and above the 1.0 target rate in 2012.

As the PDAM begins to fully pay its debt (including related arrears), the debt service coverage ratio (DSCR) starts out low, but moves steadily upward to 1.75 in Year 2012. These levels of DSCR indicate sufficient liquidity for PDAM to service its debt.

4.4.2. PROJECTED CASH FLOW STATEMENT

Table 33 below shows projected net cash flows for the PDAM. The end of period cash balances provide tight but marginally sufficient cash reserves for operations. During years in which the cash flow is negative, PDAM still maintains a positive end-of-year cash balance.

Table 33 Projected Cash Flow Statement 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Net Cash-Operation	46,174	56,200	64,760	57,712	65,193	55,736	65,725
Customer Deposits	0	900	800	5,800	9,800	9,800	9,800
Total Sources of Fund	**46,174**	**57,100**	**65,560**	**63,512**	**74,993**	**65,536**	**75,525**
Investment	21,000	21,000	21,000	25,000	25,000	20,000	20,000
Debt Service	52,673	51,355	49,170	46,984	44,799	42,614	40,428
Other	(30,271)	(1,851)	(1,390)	3,969	2,001	6,292	173
Total Uses of Fund	**43,402**	**70,504**	**68,780**	**75,953**	**71,800**	**68,906**	**60,601**
Cash Increase	2,772	(13,404)	(3,220)	(12,441)	3,193	(3,370)	18,452
EOY Cash Balance	31,515	18,112	14,892	2,451	5,644	2,275	17,199

4.4.3. PROJECTED BALANCE SHEET

As table 34 below indicates, owners equity is driven downward by negative retained earnings but gradually recovers and becomes positive in Year 2010. From that point on, owners equity continues to build. Commensurate with the improvement in owners equity is the continuing decline in long-term debt, which is reduced each year by scheduled loan payments.

Table 34 Projected Balance Sheet 2006-2012 (Rp million).

	2006	2007	2008	2009	2010	2011	2012
Cash & Bank	31,515	18,111	14,892	2,451	5,644	2,275	17,199
Other Current Assets	23,295	26,429	29,441	30,941	36,228	38,627	42,614
Total Current Assets	**54,810**	**44,540**	**44,332**	**33,392**	**41,872**	**40,901**	**59,813**
Fixed Assets	56,370	68,359	79,739	90,393	104,323	117,673	125,442
Other Assets	163,232	163,382	163,532	168,432	169,932	166,432	167,932
Total Assets	**274,413**	**276,282**	**287,603**	**292,218**	**316,127**	**325,006**	**353,188**
Current Liabilities	34,935	40,070	44,621	43,053	47,838	45,446	50,760
Long Term Liabilities	346,348	319,032	291,716	264,399	237,083	209,766	182,450
Other Liabilities	2,271	3,171	3,971	9,771	19,571	29,371	39,171
Total Liabilities	**383,554**	**362,273**	**340,308**	**317,223**	**304,492**	**284,583**	**272,381**
Equity	(109,141)	(85,991)	(52,704)	(25,005)	11,636	40,424	80,807
Total Liab. & Equity	**274,413**	**276,282**	**287,603**	**292,218**	**316,127**	**325,006**	**353,188**

5. CONCLUSION

PDAM Kota Bandung will reorganize its water supply system drawing from Sungai Cisangkuy by changing the existing transmission pipeline to deliver water to the southern area of Kota Bandung and to Kabupaten Bandung. The existing old transmission pipeline will be cut in three different locations then reconnected to a new water treatment plant (WTP) Cimenteng at two of those locations. This will disrupt flow to Badaksinga WTP; this flow will be replaced by new supply from Dago Bengkok II, via new transmission pipelines to the Badaksinga WTP. PDAM Kota Bandung, therefore, plans to:

1. Construct a 1,100 lps Cimenteng water treatment plant at a location about 4 km from the water source (Sungai Cisangkuy) at an elevation sufficient for gravity fed water flow; and
2. Construct transmission pipelines from PLTA Dago Bengkok II to deliver 600 lps water from Cikapundung river to the current Badaksinga water treatment plant.

A private operator/investor is sought to construct the Cimenteng WTP facility on a BOT basis.

5.1. CIMENTENG PROJECT FINANCIAL HIGHLIGHT

5.1.1. FINANCING PLAN

While PDAM Kota Bandung plans to self-finance the transmission network from Dago Bengkok II, it would like to conduct the Cimenteng WTP construction under a Build-Operate-Transfer (BOT) arrangement with a private sector operator/investor that will receive a long-term concession.

A loan from a domestic commercial bank is proposed to finance 70% or Rp 113.2 billion of the total investment cost. Based on the ESP team's recent discussions with several commercial banks in Indonesia, the repayment period is assumed to be eight (8) years with a 16% annual interest rate. The loan will be disbursed in three tranches, with one-year grace period for each tranch. The disbursement of the loan will start simultaneously with the start of the implementation of the investment program in 2008. The rest of the project cost, or 30% of the total, will be about Rp 48.5 billion. This would be provided by the operator/investor's equity.

5.1.2. DEBT SERVICE

The repayment period will be 2009 through 2018. In 2018, the project will pay debt service of Rp 6.340 million, consisting of Rp 5.466 million in principal and Rp 874 million in interest. Projected debt service coverage ratios for the Cimenteng WTP project are 1.25, 1.35, 1.44, 1.61, 1.82, 2.07, and 2.38 for the period 2009-2015.

5.1.3. BULK WATER TARIFF AND FEASIBILITY INDICATORS

The contract between PDAM Kota Bandung and the private operator will be on a "take-or-pay" basis that will require payment for available capacity. This means PDAM Kota Bandung will be obligated to pay the operator for the capacity made available, even if it fails to take actual delivery of the full bulk water supply capacity. This provision is designed to mitigate risk to the investor. In order to achieve the required minimum investor's ROE of 22.00%, and to keep debt service coverage ratio at an industry standard minimum of 1.25, the required bulk water tariff in year 2009 is projected to be Rp 1,570/m^3. A minimum 4.20% annual tariff increase will be enough to yield an investor's ROE of 22.07 percent.
The Cimenteng WTP project is found to be feasible with a positive net present value (NPV) of Rp 6.4 billion and an internal rate of return (IRR) of 18.55%, which is above the WACC hurdle rate of 17.80%. The project also produces a 22.07% ROE.

5.1.4. PROJECTED FINANCIAL STATEMENTS

The projected income statement for the project shows positive after-tax earnings for the period 2009 – 2015. with gross profit margin ranging from 75.50% to 83.15%, and net profit margin ranging from 17.52% to 48.03%. These figure demonstrate strong income generating capacity, as well as the liquidity needed to meet debt service obligations. The project enjoys positive annual cash flows throughout the period projected. DSCR will increase continually, starting at 1.25 in 2009 and reaching 9.51 in 2018.

5.2. PDAM KOTA BANDUNG PERFORMANCE

5.2.1. HISTORICAL PDAM PERFORMANCE

Water revenues represent nearly 78% of total operating income. Income from wastewater treatment represents nearly 19% of total operating income, and the remaining income of just over 3% is derived from non-water revenues, which are derived from fees charged for new connections, maintenance charges, meter rentals, reconnection fees, etc. Income from wastewater treatment exceeds related costs (30% of water income).

After a small dip of about 0.07% in 2004, total water revenues increased by 1% over the period. Total operating income increased 1.75% over the same period. There was a significant increase in non-water revenues from 2003-2005, 14.02% over the period. Non-water revenues rose a higher percentage than other revenues due to significant income from new connection fees, maintenance charges, reconnection fees, etc.

The cost of water sold rose 1.56% from 2004 to 2005, while total revenues for water increased 1.04% during the same period. Both of these changes were significantly greater than the changes during the period 2003 to 2004. This is a result of the reclassification of tariff categories done by PDAM during Year 2005. For the period 2003-2005, the cost of water sold (comprised of raw water, storage, and treatment costs) increased 1.65% and the cost of transmission and distribution decreased by 1.32 percent.

Average operating income per cubic meter of water sold, and average water revenues per cubic meter declined in Year 2005. The decline from the previous year was 0.92% for operating income and 1.37% for water revenues. For the period 2003-2005 average water revenues per cubic meter increased by 0.93 percent, from Rp 1,995 per cubic meter in 2003 to Rp 2,014 per cubic meter in 2005. Average water cost per cubic meter rose from Rp 1,561 to Rp 1,586 from 2003 to 2005, a 1.58% increase for the period.

Collection performance of PDAM has improved over the period 2003-2005. Improvement in efficiency of collection is reflected by the 34.91% decline in total days of collection during the period, from 225 in 2003 to 147 in 2005, though there was a spike up to 960 days in 2004.

The amount of bad debt expense per cubic meter of water sold also declined, by 44.62% for the same period. Overall accounts receivable per cubic meter of water sold also declined, by 27.21% over the 2003-2005 period. Good collection performance on the part of the PDAM is an important indicator of its ability to generate the cash necessary to make payments on the take or pay contract with the private operator/investor.

According to the most recent audited financial statements, PDAM's total outstanding loans were Rp 327.8 billion as of December 31, 2005. Within this total, Rp 211.5 billion relates to clean water activities and Rp 116.3 billion relates to wastewater activities. Principal owed as of December 31, 2005 totalled Rp 167.4 billion. PDAM's management of its debt is a key factor in maintaining sufficient reserves to service its obligations under the take-or-pay contract.

5.2.2. PROJECTED PDAM PERFORMANCE

In anticipating its O&M costs, investment programs implementation for Dago Bengkok II, Cimenteng WTP preparation, new connections, and long term debt repayment, PDAM planned to have average tariff increase of 51% in 2006. In order to cope with payment for bulk water supplied by Cimenteng WTP and to keep its operation in the level of full cost recovery, PDAM needs to have another average tariff adjustment of at least 17.5% in 2008, 17.5% in 2010, and at least 7.5% in 2012.

Both revenues and net income after taxes rise steadily as the Cimenteng project gradually comes into production. Return on investment (ROI) starts out low because of heavy investing in the early years, but gradually rises up and through the period presented. Current ratio starts above the minimum targeted figure, then dips below 1.0 as liquid assets are strained by the rising demands of the new project, then start increasing again until they pass through and above the 1.0 target rate in 2012.

The debt service coverage ratio (DSCR) starts out low because of borrowing in the early years to absorb the capacity of the Cimenteng facility, but moves steadily upward to 1.75 in Year 2012. These levels of DSCR indicate sufficient liquidity for PDAM to service its debt. End of period cash balances provide tight but marginally sufficient cash reserves for operations.

Owners equity is driven downward by negative retained earnings but gradually recovers and becomes positive in Year 2010. From that point on, owners equity continues to build. Commensurate with the improvement in owners equity is the continuing decline in long-term debt, which is reduced each year by scheduled loan payments.

5.3. SUMMARY

The Cimenteng WTP project shows financial viability based on a cost of debt at 17% and cost of equity at 22% with a 70/30 debt/equity mix for the project financing. Discounted cash flows for this project show a positive net present value using a weighted average cost of capital of 17.8 percent. Historical and projected financial performance of PDAM Kota Bandung indicate a capacity to make timely payments on the take-or-pay contract that will be part of the contract between the PDAM and the private operator/investor that builds and operates the new WTP on a BOT basis, for a concession period of 20 years.

6. APPENDIX

This part shows the related financial projections for Cimenteng WTP Project, and those for PDAM Kota Bandung. The appendix section consists of:

1. PUBLIC PRIVATE PARTNERSHIP OPTION
2. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – INCOME STATEMENT
3. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – BALANCE SHEET
4. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – CASH FLOW
5. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – PROJECT CASH FLOW
6. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – DEBT SERVICE
7. PDAM KOTA BANDUNG FINANCIAL PROJECTION – INCOME STATEMENT
8. PDAM KOTA BANDUNG FINANCIAL PROJECTION – BALANCE SHEET
9. PDAM KOTA BANDUNG FINANCIAL PROJECTION – CASH FLOW STATEMENT
10. PDAM KOTA BANDUNG FINANCIAL PROJECTION – SUMMARY

I. PUBLIC PRIVATE PARTNERSHIP OPTION

PSP/PPP PROJECT OPTIONS

This is not a green field project, because distribution of the bulk water to be supplied by the Cimenteng facility will be distributed via the existing PDAM system. Modifications to the present distribution system will be required, and O&M costs for the PDAM will rise commensurately. PDAM plans to cover these investment and increased recurrent costs from its own resources, so the role of the private sector partner/operator/investor in this project will be limited to building, operating, and maintaining the new treatment facility. Inputs to the facility will be raw water from the Cisangkuy River, for which the PDAM takes responsibility for providing the necessary water extraction permits. Outputs from the facility will be bulk water sold to PDAM via a take-or-pay contract.

The PSP/PPP options include a variety of arrangements ranging from a simple service delivery contract to a joint venture agreement. PDAM plans to do this project as a BOT, so a model concession agreement for a similar project in another big Indonesian city has been provided. Prospective operators are welcome to suggest modifications.

MODEL CONCESSION AGREEMENT

The attached model concession agreement (MCA) is provided as a guideline for what will become the contract between the private operator and PDAM. Bidders are allowed to propose modifications to this model agreement in their proposals, and further changes could evolve during contract negotiations with the successful bidder.

The attached MCA is based on the BOT model, which is widely used for these kinds of projects. This model can be modified to accommodate factors peculiar to this project and such modifications could appear in areas such as period of concession, allocation of risks, definition of responsibilities for each party to the agreement, etc. Normally, the parties to such an agreement are three:

1. Private operator.
2. Implementing agency.
3. Executing agency.

The Implementing Agency is the government entity that will work with the private operator for implementing the project. The Executing Agency is the government entity that has the authority to obligate public funds that may be called upon in the event that risks allocated to government result in the necessity to make compensatory payments from public funds to the other two parties to the agreement. In this case, the Executing Agency could be the regional government, e.g. the Kota, Kabupaten, or Propinsi, or combination thereof. The role of the Executing Agency can become quite important if in the future a problem emerges in an area that is not under the control of the Implementing Agency, e.g. raw water extraction permits and payments to the operator in compensation for tariffs that regional government might allow to fall outside of the ranges and formulas provided by the agreement.

Generally these kinds of projects include a provision that at the end of the contract period ownership of the assets contributed by the private operator are transferred to government. The theory behind this approach has two components:

1. By the end of the contract period the private operator will have fully recovered its investment with at least industry standard rate of return.
2. By the end of the contract period the Implementing Agency will have developed sufficient capacity to manage the facility on its own.

Despite the above-referenced attention to ownership and transfer of assets, the focus of any well-designed PSP/PPP project is service delivery. Ownership is a secondary issue. The purpose of any PSP/PPP project is to increase the quantity and quality of service delivery at prices consumers can afford. This must be the prime objective of all parties to the agreement while the agreement is tailored to the needs of this particular project and contract negotiations are brought to their final conclusion.

Because of the service delivery focus associated with any PSP/PPP project, there should always be an independent third party entity that protects the rights of all parties to project and those parties include not only the entities directly involved in the contract but also the users of the services to be provided by the project. Ideally, such independent third party entity is a regulator that is both politically and financially independent and has authority to monitor and enforce contract compliance. Normally, the only recourse to decisions by the independent regulator is through arbitration or litigation, and such recourse provisions need to be clearly specified in the contract. Therefore, a key area of focus during contract structuring, negotiations, and execution should be how contract compliance will be both monitored and enforced, how disputes will be resolved, and what assurance is provided regarding equitable and timely compensation for failure to perform by any party to the agreement. At the present time, the regulatory regime in Indonesia for the water sector is embryonic so these kinds of details need to be carefully addressed in the contract.

2. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – INCOME STATEMENT

INCOME STATEMENT

(Rp 000)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue	**0**	**17,262,191**	**35,925,396**	**56,176,928**	**58,536,359**	**60,994,886**	**63,556,671**	**66,226,052**	**69,007,546**	**71,905,863**
Tariff (Rp/m3)	0	1,570	1,636	1,705	1,776	1,851	1,929	2,010	2,094	2,182
Water Revenue	0	17,262,191	35,925,396	56,176,928	58,536,359	60,994,886	63,556,671	66,226,052	69,007,546	71,905,863
Non Water Revenue	0	0	0	0	0	0	0	0	0	0
Expenditure	**0**	**3,785,437**	**6,741,217**	**9,466,141**	**10,054,832**	**10,687,675**	**11,367,981**	**12,099,310**	**12,885,488**	**13,730,630**
Raw water Purchase	0	405,080	869,735	1,403,086	1,508,317	1,621,441	1,743,049	1,873,778	2,014,311	2,165,385
Personil	0	577,200	620,490	667,027	717,054	770,833	828,645	890,794	957,603	1,029,423
Electricity	0	752,291	1,615,223	2,605,731	2,801,161	3,011,248	3,237,091	3,479,873	3,740,864	4,021,429
Chemical	0	868,028	1,863,718	3,006,613	3,232,109	3,474,517	3,735,106	4,015,238	4,316,381	4,640,110
Maintenance& Insurance	0	1,038,538	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928
Provision for Doubtful Accounts	0	0	0	0	0	0	0	0	0	0
Royalty	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0
Overhead	0	144,300	155,123	166,757	179,263	192,708	207,161	222,698	239,401	257,356
Gross Profit Margin	**0**	**13,476,754**	**29,184,179**	**46,710,787**	**48,481,527**	**50,307,212**	**52,188,691**	**54,126,742**	**56,122,058**	**58,175,233**
Depreciation	0	2,752,750	5,711,956	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103
Amortization	0	350,350	726,976	1,131,849	1,131,849	1,131,849	1,131,849	1,131,849	1,131,849	781,499
Earning before interest and tax	**0**	**10,373,654**	**22,745,246**	**36,685,835**	**38,456,575**	**40,282,259**	**42,163,738**	**44,101,790**	**46,097,105**	**48,500,630**
Interest	0	6,054,048	11,805,394	17,231,334	14,786,539	12,341,744	9,896,950	7,452,155	5,007,360	2,562,565
Earning before tax	**0**	**4,319,606**	**10,939,853**	**19,454,501**	**23,670,036**	**27,940,515**	**32,266,789**	**36,649,635**	**41,089,745**	**45,938,065**
Corporate Tax	0	1,295,882	3,281,956	5,836,350	7,101,011	8,382,154	9,680,037	10,994,890	12,326,924	13,781,420
Earning after tax	**0**	**3,023,724**	**7,657,897**	**13,618,151**	**16,569,025**	**19,558,360**	**22,586,752**	**25,654,744**	**28,762,822**	**32,156,646**

INCOME STATEMENT

(Rp 000)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenue	**74,925,909**	**78,072,797**	**81,351,855**	**84,768,633**	**88,328,915**	**92,038,730**	**95,904,356**	**99,932,339**	**104,129,497**	**108,502,936**
Tariff (Rp/m3)	2,274	2,369	2,469	2,572	2,680	2,793	2,910	3,032	3,160	3,292
Water Revenue	74,925,909	78,072,797	81,351,855	84,768,633	88,328,915	92,038,730	95,904,356	99,932,339	104,129,497	108,502,936
Non Water Revenue	0	0	0	0	0	0	0	0	0	0
Expenditure	**14,639,158**	**15,615,825**	**16,665,742**	**17,794,404**	**19,007,714**	**20,312,023**	**21,714,155**	**23,221,448**	**24,841,788**	**26,583,654**
Raw water Purchase	2,327,788	2,502,373	2,690,051	2,891,804	3,108,690	3,341,841	3,592,480	3,861,915	4,151,559	4,462,926
Personil	1,106,630	1,189,627	1,278,849	1,374,763	1,477,870	1,588,711	1,707,864	1,835,954	1,973,650	2,121,674
Electricity	4,323,036	4,647,263	4,995,808	5,370,494	5,773,281	6,206,277	6,671,748	7,172,129	7,710,038	8,288,291
Chemical	4,988,118	5,362,227	5,764,394	6,196,724	6,661,478	7,161,089	7,698,170	8,275,533	8,896,198	9,563,413
Maintenance& Insurance	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928
Provision for Doubtful Accounts	0	0	0	0	0	0	0	1	2	3
Royalty	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0
Overhead	276,658	297,407	319,712	343,691	369,468	397,178	426,966	458,988	493,413	530,419
Gross Profit Margin	**60,286,751**	**62,456,972**	**64,686,112**	**66,974,229**	**69,321,201**	**71,726,706**	**74,190,201**	**76,710,891**	**79,287,709**	**81,919,282**
Depreciation	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103	8,893,103
Amortization	404,873	0	0	0	0	0	0	0	0	0
Earning before interest and tax	**50,988,775**	**53,563,869**	**55,793,009**	**58,081,126**	**60,428,098**	**62,833,603**	**65,297,098**	**67,817,788**	**70,394,606**	**73,026,179**
Interest	874,526	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Earning before tax	**50,114,249**	**53,563,869**	**55,793,009**	**58,081,126**	**60,428,098**	**62,833,603**	**65,297,098**	**67,817,788**	**70,394,606**	**73,026,179**
Corporate Tax	15,034,275	16,069,161	16,737,903	17,424,338	18,128,429	18,850,081	19,589,129	20,345,336	21,118,382	21,907,854
Earning after tax	**35,079,974**	**37,494,708**	**39,055,106**	**40,656,788**	**42,299,669**	**43,983,522**	**45,707,968**	**47,472,451**	**49,276,224**	**51,118,326**

3. CIMENTENG WTP PROJECT FINANCIAL PROJECTION -BALANCE SHEET.

BALANCE SHEET

(Rp 000)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Current Assets										
Cash	0	132,717	1,818,021	4,184,556	6,698,264	9,370,183	12,212,178	15,237,005	18,458,378	21,891,035
Account Receivable	0	1,418,810	2,952,772	4,617,282	4,811,208	5,013,278	5,223,836	5,443,237	5,671,853	5,910,071
Less:Allowance for doubtful accounts	0	0	0	0	0	0	0	0	0	0
Inventories	0	71,345	153,182	247,119	265,653	285,577	306,995	330,020	354,771	381,379
Total current assets	**0**	**1,622,872**	**4,923,976**	**9,048,957**	**11,775,125**	**14,669,038**	**17,743,009**	**21,010,262**	**24,485,002**	**28,182,485**
Fixed Assets										
Fixed assets (incl. land)	*50,050,000*	103,853,750	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781
Less : Accumulated depreciation	0	(2,752,750)	(8,464,706)	(17,357,809)	(26,250,912)	(35,144,015)	(44,037,118)	(52,930,221)	(61,823,324)	(70,716,427)
Net Fixed Assets in Service	**50,050,000**	**101,101,000**	**153,228,075**	**144,334,972**	**135,441,869**	**126,548,766**	**117,655,663**	**108,762,560**	**99,869,457**	**90,976,354**
Other Assets										
Deferred charges	2,802,800	5,815,810	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796
Less : Accumulated Amortization	0	(350,350)	(1,077,326)	(2,209,176)	(3,341,025)	(4,472,875)	(5,604,724)	(6,736,574)	(7,868,423)	(8,649,923)
Total Other Assets	**2,802,800**	**5,465,460**	**7,977,470**	**6,845,620**	**5,713,771**	**4,581,921**	**3,450,072**	**2,318,222**	**1,186,373**	**404,873**
TOTAL ASSETS	**52,852,800**	**108,189,332**	**166,129,520**	**160,229,549**	**152,930,764**	**145,799,725**	**138,848,744**	**132,091,045**	**125,540,832**	**119,563,712**
Current Liabilities										
Account Payable	0	225,773	421,174	645,141	693,526	745,541	801,456	861,566	926,183	995,647
Taxes Payable	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	**0**	**225,773**	**421,174**	**645,141**	**693,526**	**745,541**	**801,456**	**861,566**	**926,183**	**995,647**
Long-term Debt	**37,837,800**	**73,783,710**	**107,695,838**	**92,415,870**	**77,135,903**	**61,855,935**	**46,575,967**	**31,295,999**	**16,016,031**	**5,465,788**
Equity										
PDAM	0	0	0	0	0	0	0	0	0	0
Second Party	15,015,000	31,156,125	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834
Retained earnings	0	3,023,724	9,504,673	18,660,703	26,593,501	34,690,415	42,963,486	51,425,645	60,090,783	64,594,443
Total Equity	**15,015,000**	**34,179,849**	**58,012,508**	**67,168,538**	**75,101,335**	**83,198,250**	**91,471,321**	**99,933,480**	**108,598,617**	**113,102,277**
TOTAL LIABILITIES AND EQUITY	**52,852,800**	**108,189,332**	**166,129,520**	**160,229,549**	**152,930,764**	**145,799,725**	**138,848,744**	**132,091,045**	**125,540,832**	**119,563,712**

BALANCE SHEET

(Rp 000)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Current Assets										
Cash	25,550,825	29,454,781	33,621,216	38,069,817	42,821,746	47,899,752	53,328,291	59,133,653	65,344,100	71,990,013
Account Receivable	6,158,294	6,416,942	6,686,454	6,967,285	7,259,911	7,564,827	7,882,550	8,213,617	8,558,589	8,918,050
Less:Allowance for doubtful accounts	0	0	0	0	0	0	0	0	0	0
Inventories	409,982	440,731	473,786	509,320	547,519	588,583	632,726	680,181	731,194	786,034
Total current assets	**32,119,101**	**36,312,454**	**40,781,456**	**45,546,422**	**50,629,176**	**56,053,161**	**61,843,567**	**68,027,450**	**74,633,883**	**81,694,097**
Fixed Assets										
Fixed assets (incl. land)	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781	161,692,781
Less : Accumulated depreciation	(79,609,530)	(88,502,633)	(97,395,736)	(106,288,839)	(115,181,942)	(124,075,045)	(132,968,148)	(141,861,251)	(150,754,354)	(159,647,457)
Net Fixed Assets in Service	**82,083,251**	**73,190,148**	**64,297,045**	**55,403,942**	**46,510,839**	**37,617,736**	**28,724,633**	**19,831,530**	**10,938,428**	**2,045,325**
Other Assets										
Deferred charges	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796	9,054,796
Less : Accumulated Amortization	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)	(9,054,796)
Total Other Assets	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL ASSETS	**114,202,352**	**109,502,602**	**105,078,501**	**100,950,364**	**97,140,015**	**93,670,898**	**90,568,200**	**87,858,981**	**85,572,311**	**83,739,421**
Current Liabilities										
Account Payable	1,070,320	1,150,594	1,236,889	1,329,656	1,429,380	1,536,583	1,651,827	1,775,714	1,908,892	2,052,059
Taxes Payable	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	**1,070,320**	**1,150,594**	**1,236,889**	**1,329,656**	**1,429,380**	**1,536,583**	**1,651,827**	**1,775,714**	**1,908,892**	**2,052,059**
Long-term Debt	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**
Equity										
PDAM	0	0	0	0	0	0	0	0	0	0
Second Party	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834	48,507,834
Retained earnings	64,624,197	59,844,174	55,333,778	51,112,874	47,202,801	43,626,480	40,408,539	37,575,433	35,155,584	33,179,528
Total Equity	**113,132,032**	**108,352,008**	**103,841,613**	**99,620,709**	**95,710,635**	**92,134,315**	**88,916,373**	**86,083,267**	**83,663,418**	**81,687,362**
TOTAL LIABILITIES AND EQUITY	**114,202,352**	**109,502,602**	**105,078,501**	**100,950,364**	**97,140,015**	**93,670,898**	**90,568,200**	**87,858,981**	**85,572,311**	**83,739,421**

4. CIMENTENG WTP PROJECT FINANCIAL PROJECTION -CASH FLOW

CASHFLOW

(Rp 000)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
OPERATIONAL CASHFLOW	**0**	**13,476,754**	**29,184,179**	**46,710,787**	**48,481,527**	**50,307,212**	**52,188,691**	**54,126,742**	**56,122,058**	**58,175,233**
Revenues	**0**	**17,262,191**	**35,925,396**	**56,176,928**	**58,536,359**	**60,994,886**	**63,556,671**	**66,226,052**	**69,007,546**	**71,905,863**
Tariff revenue	0	17,262,191	35,925,396	56,176,928	58,536,359	60,994,886	63,556,671	66,226,052	69,007,546	71,905,863
Connection fees	0	0	0	0	0	0	0	0	0	0
Other revenue	0	0	0	0	0	0	0	0	0	0
Expenditures	**0**	**3,785,437**	**6,741,217**	**9,466,141**	**10,054,832**	**10,687,675**	**11,367,981**	**12,099,310**	**12,885,488**	**13,730,630**
Raw water Purchase	0	405,080	869,735	1,403,086	1,508,317	1,621,441	1,743,049	1,873,778	2,014,311	2,165,385
Personil	0	577,200	620,490	667,027	717,054	770,833	828,645	890,794	957,603	1,029,423
Electricity	0	752,291	1,615,223	2,605,731	2,801,161	3,011,248	3,237,091	3,479,873	3,740,864	4,021,429
Chemical	0	868,028	1,863,718	3,006,613	3,232,109	3,474,517	3,735,106	4,015,238	4,316,381	4,640,110
Maintenance	0	1,038,538	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928
Overhead	0	144,300	155,123	166,757	179,263	192,708	207,161	222,698	239,401	257,356
INVESTMENT CASHFLOW	**(50,050,000)**	**(53,803,750)**	**(57,839,031)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
FINANCIAL CASHFLOW	**50,050,000**	**43,019,977**	**36,219,458**	**(32,511,302)**	**(30,066,507)**	**(27,621,712)**	**(25,176,917)**	**(22,732,123)**	**(20,287,328)**	**(13,112,808)**
Equity (paid-in capital)	**15,015,000**	**16,141,125**	**17,351,709**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PDAM	0	0	0	0	0	0	0	0	0	0
Second Party	15,015,000	16,141,125	17,351,709	0	0	0	0	0	0	0
Loans	**35,035,000**	**37,662,625**	**40,487,322**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Bank Loan	35,035,000	37,662,625	40,487,322	0	0	0	0	0	0	0
Stockholder Loan	0	0	0	0	0	0	0	0	0	0
Debt service	**0**	**(10,783,773)**	**(21,619,573)**	**(32,511,302)**	**(30,066,507)**	**(27,621,712)**	**(25,176,917)**	**(22,732,123)**	**(20,287,328)**	**(13,112,808)**
Principal	0	(4,729,725)	(9,814,179)	(15,279,968)	(15,279,968)	(15,279,968)	(15,279,968)	(15,279,968)	(15,279,968)	(10,550,243)
Interest	0	(6,054,048)	(11,805,394)	(17,231,334)	(14,786,539)	(12,341,744)	(9,896,950)	(7,452,155)	(5,007,360)	(2,562,565)
Corporate taxes /a	0	(1,295,882)	(3,281,956)	(5,836,350)	(7,101,011)	(8,382,154)	(9,680,037)	(10,994,890)	(12,326,924)	(13,781,420)
Net working capital	0	(1,264,382)	(1,420,398)	(1,534,480)	(164,074)	(169,980)	(176,060)	(182,317)	(188,750)	(195,362)
Dividend payments	0	0	(1,176,948)	(4,462,120)	(8,636,227)	(11,461,446)	(14,313,681)	(17,192,585)	(20,097,684)	(27,652,986)
BOY Cash Balance	**0**	**0**	**132,717**	**1,818,021**	**4,184,556**	**6,698,264**	**9,370,183**	**12,212,178**	**15,237,005**	**18,458,378**
Net cashflow	0	132,717	1,685,304	2,366,535	2,513,708	2,671,919	2,841,995	3,024,827	3,221,372	3,432,658
EOY Cash Balance	**0**	**132,717**	**1,818,021**	**4,184,556**	**6,698,264**	**9,370,183**	**12,212,178**	**15,237,005**	**18,458,378**	**21,891,035**

CASHFLOW

(Rp 000)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATIONAL CASHFLOW	**60,286,751**	**62,456,972**	**64,686,112**	**66,974,229**	**69,321,201**	**71,726,706**	**74,190,201**	**76,710,891**	**79,287,709**	**81,919,282**
Revenues	**74,925,909**	**78,072,797**	**81,351,855**	**84,768,633**	**88,328,915**	**92,038,730**	**95,904,356**	**99,932,339**	**104,129,497**	**108,502,936**
Tariff revenue	74,925,909	78,072,797	81,351,855	84,768,633	88,328,915	92,038,730	95,904,356	99,932,339	104,129,497	108,502,936
Connection fees	0	0	0	0	0	0	0	0	0	0
Other revenue	0	0	0	0	0	0	0	0	0	0
Expenditures	**14,639,158**	**15,615,825**	**16,665,742**	**17,794,404**	**19,007,714**	**20,312,023**	**21,714,155**	**23,221,448**	**24,841,788**	**26,583,654**
Raw water Purchase	2,327,788	2,502,373	2,690,051	2,891,804	3,108,690	3,341,841	3,592,480	3,861,915	4,151,559	4,462,926
Personil	1,106,630	1,189,627	1,278,849	1,374,763	1,477,870	1,588,711	1,707,864	1,835,954	1,973,650	2,121,674
Electricity	4,323,036	4,647,263	4,995,808	5,370,494	5,773,281	6,206,277	6,671,748	7,172,129	7,710,038	8,288,291
Chemical	4,988,118	5,362,227	5,764,394	6,196,724	6,661,478	7,161,089	7,698,170	8,275,533	8,896,198	9,563,413
Maintenance	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928	1,616,928
Overhead	276,658	297,407	319,712	343,691	369,468	397,178	426,966	458,988	493,413	530,419
INVESTMENT CASHFLOW	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
FINANCIAL CASHFLOW	**(6,340,315)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Equity (paid-in capital)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PDAM	0	0	0	0	0	0	0	0	0	0
Second Party	0	0	0	0	0	0	0	0	0	0
Loans	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Bank Loan	0	0	0	0	0	0	0	0	0	0
Stockholder Loan	0	0	0	0	0	0	0	0	0	0
Debt service	**(6,340,315)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Principal	(5,465,788)	0	0	0	0	0	0	0	0	0
Interest	(874,526)	0	0	0	0	0	0	0	0	0
Corporate taxes /a	(15,034,275)	(16,069,161)	(16,737,903)	(17,424,338)	(18,128,429)	(18,850,081)	(19,589,129)	(20,345,336)	(21,118,382)	(21,907,854)
Net working capital	(202,153)	(209,123)	(216,272)	(223,598)	(231,101)	(238,777)	(246,623)	(254,635)	(262,807)	(271,133)
Dividend payments	(35,050,219)	(42,274,732)	(43,565,502)	(44,877,692)	(46,209,742)	(47,559,843)	(48,925,910)	(50,305,558)	(51,696,073)	(53,094,382)
BOY Cash Balance	**21,891,035**	**25,550,825**	**29,454,781**	**33,621,216**	**38,069,817**	**42,821,746**	**47,899,752**	**53,328,291**	**59,133,653**	**65,344,100**
Net cashflow	3,659,789	3,903,956	4,166,436	4,448,601	4,751,929	5,078,006	5,428,539	5,805,362	6,210,447	6,645,913
EOY Cash Balance	**25,550,825**	**29,454,781**	**33,621,216**	**38,069,817**	**42,821,746**	**47,899,752**	**53,328,291**	**59,133,653**	**65,344,100**	**71,990,013**

5. CIMENTENG WTP PROJECT FINANCIAL PROJECTION –PROJECT CASH FLOW

PROJECT CASH FLOW

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operational Cashflow	0	2,692,981	7,564,606	14,199,485	18,415,020	22,685,499	27,011,773	31,394,620	35,834,730	45,062,425
Investment Cashflow	(50,050,000)	(53,803,750)	(57,839,031)	0	0	0	0	0	0	0
Net cashflow	**(50,050,000)**	**(51,110,769)**	**(50,274,425)**	**14,199,485**	**18,415,020**	**22,685,499**	**27,011,773**	**31,394,620**	**35,834,730**	**45,062,425**

WACC	**17.80%**
NPV	**6,386,299**
IRR	**18.55%**

INVESTOR CASH FLOW

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Investor Cash Flow - Private Party	(15,015,000)	(16,141,125)	(17,351,709)	0	0	0	0	0	0	0
Investor Cash Flow - PDAM	0	0	0	0	0	0	0	0	0	0
Total Investor Cash Flow	**(15,015,000)**	**(16,141,125)**	**(17,351,709)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Dividen Payment To Investors	0	0	1,176,948	4,462,120	8,636,227	11,461,446	14,313,681	17,192,585	20,097,684	27,652,986
Tax on Dividen	0	0	(353,084)	(1,338,636)	(2,590,868)	(3,438,434)	(4,294,104)	(5,157,776)	(6,029,305)	(8,295,896)
Net Investor Cash Flow	**(15,015,000)**	**(16,141,125)**	**(16,527,846)**	**3,123,484**	**6,045,359**	**8,023,012**	**10,019,577**	**12,034,810**	**14,068,379**	**19,357,090**

IRR to Investors	**22.07%**

PROJECT CASH FLOW

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operational Cashflow	53,946,436	62,456,972	64,686,112	66,974,229	69,321,201	71,726,706	74,190,201	76,710,891	79,287,709	81,919,282
Investment Cashflow	0	0	0	0	0	0	0	0	0	0
Net cashflow	**53,946,436**	**62,456,972**	**64,686,112**	**66,974,229**	**69,321,201**	**71,726,706**	**74,190,201**	**76,710,891**	**79,287,709**	**81,919,282**

INVESTOR CASH FLOW

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Investor Cash Flow - Private Party	0	0	0	0	0	0	0	0	0	0
Investor Cash Flow - PDAM	0	0	0	0	0	0	0	0	0	0
Total Investor Cash Flow	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Dividen Payment To Investors	35,050,219	42,274,732	43,565,502	44,877,692	46,209,742	47,559,843	48,925,910	50,305,558	51,696,073	53,094,382
Tax on Dividen	(10,515,066)	(12,682,420)	(13,069,651)	(13,463,308)	(13,862,923)	(14,267,953)	(14,677,773)	(15,091,667)	(15,508,822)	(15,928,315)
Net Investor Cash Flow	**24,535,154**	**29,592,312**	**30,495,851**	**31,414,384**	**32,346,820**	**33,291,890**	**34,248,137**	**35,213,890**	**36,187,251**	**37,166,067**

6. CIMENTENG WTP PROJECT'S FINANCIAL PROJECTION – DEBT SERVICE

DEBT REPAYMENT SCHEDULE - ALL TRANCHES

(Rp 000)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Periode of payment	8									
Interest rate	16.00%									
IDC	0									
Disbursement	35,035,000	37,662,625	40,487,322	0	0	0	0	0	0	0
Interest Grace	2,802,800	3,013,010	3,238,986	0	0	0	0	0	0	0
Total Interest Capitalized	**2,802,800**	**5,465,460**	**7,977,470**	**6,845,620**	**5,713,771**	**4,581,921**	**3,450,072**	**2,318,222**	**1,186,373**	**404,873**
Loan Balance	**37,837,800**	**73,783,710**	**107,695,838**	**92,415,870**	**77,135,903**	**61,855,935**	**46,575,967**	**31,295,999**	**16,016,031**	**5,465,788**
Principal payment	0	4,379,375	9,087,203	14,148,118	14,148,118	14,148,118	14,148,118	14,148,118	14,148,118	9,768,743
Amortization of Capitalized Interest	0	350,350	726,976	1,131,849	1,131,849	1,131,849	1,131,849	1,131,849	1,131,849	781,499
Sub Total, Principal	**0**	**4,729,725**	**9,814,179**	**15,279,968**	**15,279,968**	**15,279,968**	**15,279,968**	**15,279,968**	**15,279,968**	**10,550,243**
Interest	0	6,054,048	11,805,394	17,231,334	14,786,539	12,341,744	9,896,950	7,452,155	5,007,360	2,562,565
Penalty	0	0	0	0	0	0	0	0	0	0
Commitment Charge	0	0	0	0	0	0	0	0	0	0
Service Charge	0	0	0	0	0	0	0	0	0	0
Sub Total, Interest, etc.	**0**	**6,054,048**	**11,805,394**	**17,231,334**	**14,786,539**	**12,341,744**	**9,896,950**	**7,452,155**	**5,007,360**	**2,562,565**
Total Payment	**0**	**10,783,773**	**21,619,573**	**32,511,302**	**30,066,507**	**27,621,712**	**25,176,917**	**22,732,123**	**20,287,328**	**13,112,808**

DEBT REPAYMENT SCHEDULE - ALL TRANCHES

(Rp 000)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Periode of payment										
Interest rate										
IDC										
Disbursement	0	0	0	0	0	0	0	0	0	0
Interest Grace	0	0	0	0	0	0	0	0	0	0
Total Interest Capitalized	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Loan Balance	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**
Principal payment	5,060,915	0	0	0	0	0	0	0	0	0
Amortization of Capitalized Interest	404,873	0	0	0	0	0	0	0	0	0
Sub Total, Principal	**5,465,788**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Interest	874,526	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Penalty	0	0	0	0	0	0	0	0	0	0
Commitment Charge	0	0	0	0	0	0	0	0	0	0
Service Charge	0	0	0	0	0	0	0	0	0	0
Sub Total, Interest, etc.	**874,526**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**
Total Payment	**6,340,315**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**	**(0)**

7. PDAM KOTA BANDUNG FINANCIAL PROJECTION – INCOME STATEMENT

PDAM KOTA BANDUNG

Laba (Rugi)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PENDAPATAN (Rp 000)													
Pendapatan Penjualan Air	53,226,293	53,272,185	54,103,446	67,971,810	81,983,092	95,343,508	100,226,998	122,898,602	131,252,230	147,500,249	155,706,334	163,056,942	170,407,550
Pendapatan Administrasi & Sewa Meter	14,791,892	14,720,580	14,596,220	27,648,300	27,840,298	28,032,296	29,184,284	31,104,265	33,024,246	34,944,227	36,864,207	38,784,188	40,704,169
Pendapatan Air	**68,018,185**	**67,992,765**	**68,699,665**	**95,620,110**	**109,823,390**	**123,375,804**	**129,411,282**	**154,002,867**	**164,276,476**	**182,444,475**	**192,570,541**	**201,841,130**	**211,111,719**
Pendapatan Sambungan Baru	800,520	833,258	1,091,573	1,000,000	1,000,000	1,000,000	6,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Pendapatan Operasi Non Air Lainnya	1,816,993	2,048,839	1,892,954	2,390,503	2,745,585	3,084,395	3,235,282	3,850,072	4,106,912	4,561,112	4,814,264	5,046,028	5,277,793
Pendapatan Non Air	**2,617,513**	**2,882,097**	**2,984,526**	**3,390,503**	**3,745,585**	**4,084,395**	**9,235,282**	**13,850,072**	**14,106,912**	**14,561,112**	**14,814,264**	**15,046,028**	**15,277,793**
Pendapatan Air Kotor	**16,406,440**	**16,345,767**	**16,879,806**	**20,391,543**	**24,594,928**	**28,603,052**	**30,068,099**	**36,869,581**	**39,375,669**	**44,250,075**	**46,711,900**	**48,917,083**	**51,122,265**
Pendapatan Operasi	**87,042,138**	**87,220,628**	**88,563,998**	**119,402,156**	**138,163,902**	**156,063,252**	**168,714,663**	**204,722,520**	**217,759,057**	**241,255,662**	**254,096,705**	**265,804,241**	**277,511,777**
BIAYA-BIAYA (Rp 000)													
Tenaga Kerja	25,750,877	28,532,508	30,213,989	32,026,828	33,948,438	35,985,344	38,144,465	40,433,133	42,859,121	45,430,668	48,156,508	51,045,899	54,108,653
Listrik dan Bahan Bakar	3,499,319	4,196,419	4,097,183	4,302,042	4,302,042	4,517,145	4,517,145	4,743,002	4,743,002	4,980,152	4,980,152	5,229,160	5,229,160
Bahan Kimia dan Bahan Pembantu	3,323,481	3,131,721	4,529,762	4,869,494	5,234,706	5,627,309	6,049,357	6,503,059	6,990,789	7,515,098	8,078,730	8,684,635	9,335,983
Pemeliharaan & Biaya Bahan	7,491,967	3,153,297	9,650,042	9,943,213	9,943,213	10,720,213	11,497,213	12,274,213	13,199,213	14,124,213	14,864,213	15,604,213	16,344,213
Administrasi & Umum	5,587,824	6,264,410	9,077,697	9,287,780	9,860,047	10,451,800	11,079,068	11,743,984	12,448,807	13,194,894	13,990,387	14,828,311	15,716,509
Penyisihan Piutang	6,854,137	14,497,515	3,798,721	5,437,745	6,558,647	7,627,481	8,018,160	9,831,888	10,500,178	11,800,020	12,456,507	13,044,555	13,632,604
Air Baku	985,721	862,498	907,736	975,816	1,049,003	1,127,678	1,212,254	1,303,173	1,400,911	1,505,979	1,618,927	1,740,347	1,870,873
Biaya Operasional Air Kotor	4,190,518	3,689,945	5,053,400	4,679,004	4,962,727	5,323,988	5,636,236	6,078,272	6,449,941	6,898,572	7,290,180	7,712,398	8,136,660
Pembelian air dari PDAM lain	0	0	0	0	0	0	17,262,191	35,925,396	56,176,928	58,536,359	60,994,886	63,556,671	66,226,052
Biaya Operasi Tunai	**57,683,843**	**64,328,312**	**67,328,531**	**71,521,924**	**75,858,824**	**81,380,958**	**103,416,090**	**128,836,119**	**154,768,890**	**163,985,954**	**172,430,491**	**181,446,189**	**190,600,705**
LABA-RUGI (Rp 000)													
Laba Rugi Operasi	**29,358,294**	**22,892,316**	**21,235,467**	**47,880,232**	**62,305,078**	**74,682,294**	**65,298,573**	**75,886,401**	**62,990,167**	**77,269,707**	**81,666,214**	**84,358,052**	**86,911,072**
Pendapatan Non Operasi	8,149,614	5,564,532	3,804,224	4,302,905	4,942,053	5,551,911	5,823,508	6,930,129	7,392,441	8,210,001	8,665,674	9,082,851	9,500,027
Biaya Non Operasi	(5,957,442)	(2,993,234)	(2,209,046)	(1,072,829)	(1,137,882)	(1,220,714)	(1,551,241)	(1,932,542)	(2,321,533)	(2,459,789)	(2,586,457)	(2,721,693)	(2,859,011)
Laba Rugi Sebelum Penyusutan	**31,550,466**	**25,463,614**	**22,830,645**	**51,110,308**	**66,109,249**	**79,013,491**	**69,570,840**	**80,883,988**	**68,061,075**	**83,019,920**	**87,745,431**	**90,719,210**	**93,552,089**
Biaya Penyusutan	8,638,222	8,619,853	8,043,918	8,402,329	9,011,329	9,620,329	10,345,329	11,070,329	11,650,329	12,230,329	12,810,329	13,390,329	13,970,329
Laba Rugi sebelum Bunga	**22,912,244**	**16,843,761**	**14,786,727**	**42,707,979**	**57,097,919**	**69,393,162**	**59,225,510**	**69,813,658**	**56,410,746**	**70,789,590**	**74,935,102**	**77,328,881**	**79,581,759**
Biaya Bunga	13,060,187	7,682,383	6,738,570	26,223,734	24,038,423	21,853,112	19,667,801	17,482,489	15,297,178	13,111,867	10,926,556	8,741,245	6,555,934
Laba Rugi sebelum Pajak	**9,852,058**	**9,161,379**	**8,048,157**	**16,484,245**	**33,059,496**	**47,540,050**	**39,557,710**	**52,331,169**	**41,113,568**	**57,677,723**	**64,008,546**	**68,587,636**	**73,025,826**
Pajak penghasilan badan	4,633,645	3,764,211	4,591,476	4,936,523	9,909,099	14,253,265	11,858,563	15,690,601	12,325,320	17,294,567	19,193,814	20,567,541	21,898,998
Laba Rugi setelah Pajak	**5,218,413**	**5,397,168**	**3,456,681**	**11,547,721**	**23,150,398**	**33,286,785**	**27,699,147**	**36,640,568**	**28,788,247**	**40,383,156**	**44,814,732**	**48,020,095**	**51,126,828**
RETURN ON INVESTMENT (ROI)													
ROI Tahunan	2.03%	2.07%	1.30%	4.30%	8.29%	11.09%	8.62%	10.64%	7.80%	10.31%	10.88%	11.12%	11.32%
B. Ops./Pend. Ops. (Working Ratio) < 100%	84.81%	94.61%	98.00%	74.80%	69.07%	65.96%	79.91%	83.66%	94.21%	89.88%	89.54%	89.90%	90.28%
Current Ratio	2.25	0.92	1.75	1.57	1.11	0.99	0.78	0.88	0.90	1.18	1.52	1.92	2.35
Laba/pendapatan air	7.7%	7.9%	5.0%	12.1%	21.1%	27.0%	21.4%	23.8%	17.5%	22.1%	23.3%	23.8%	24.2%
DSC Ratio	1.75	2.19	2.19	0.81	1.11	1.41	1.26	1.56	1.32	1.75	1.96	2.14	2.35

8. PDAM KOTA BANDUNG FINANCIAL PROJECTION – BALANCE SHEET

PDAM KOTA BANDUNG

Neraca

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AKTIVA (Rp 000)													
Kas & Bank	20,071,162	14,172,433	28,743,359	31,515,275	18,111,820	14,891,790	2,451,282	5,644,246	2,274,517	17,198,898	35,651,262	57,544,220	83,072,111
Piutang Usaha	23,081,731	16,422,702	16,813,841	16,733,519	19,219,093	21,590,766	22,646,974	26,950,502	28,748,383	31,927,783	33,699,845	35,322,198	36,944,551
Piutang Lain-lain	4,281,969	3,714,062	2,018,008	2,629,553	3,020,143	3,392,835	3,558,810	4,235,079	4,517,603	5,017,223	5,295,690	5,550,631	5,805,572
Persediaan	1,909,196	1,217,507	1,062,744	1,209,310	1,303,810	1,398,310	1,492,810	1,605,310	1,717,810	1,807,810	1,897,810	1,987,810	2,077,810
Pembayaran Dimuka	1,761,874	593,706	2,555,446	2,722,280	2,885,617	3,058,754	3,242,280	3,436,816	3,643,025	3,861,607	4,093,303	4,338,901	4,599,235
Aktiva Lancar	**51,105,932**	**36,120,409**	**51,193,398**	**54,809,937**	**44,540,484**	**44,332,454**	**33,392,156**	**41,871,953**	**40,901,339**	**59,813,321**	**80,637,910**	**104,743,760**	**132,499,280**
Tanah	6,685,986	6,694,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236	6,703,236
Harga Perolehan diluar tanah	259,114,788	262,190,453	268,735,493	268,735,493	289,735,493	310,735,493	331,735,493	356,735,493	381,735,493	401,735,493	421,735,493	441,735,493	461,735,493
Akumulasi Penyusutan	(204,126,099)	(202,622,044)	(210,665,962)	(219,068,291)	(228,079,620)	(237,699,950)	(248,045,279)	(259,115,608)	(270,765,937)	(282,996,267)	(295,806,596)	(309,196,925)	(323,167,255)
Nilai Buku Aktiva Tetap	**61,674,675**	**66,262,645**	**64,772,767**	**56,370,438**	**68,359,108**	**79,738,779**	**90,393,450**	**104,323,120**	**117,672,791**	**125,442,462**	**132,632,133**	**139,241,803**	**145,271,474**
Aktiva Tetap Dalam Penyelesaian	0	0	0	21,000,000	21,000,000	21,000,000	25,000,000	25,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
Aktiva Lain-Lain	65,806,630	74,001,785	142,082,203	142,232,203	142,382,203	142,532,203	143,432,203	144,932,203	146,432,203	147,932,203	149,432,203	150,932,203	152,432,203
Total Aktiva	**178,587,237**	**176,384,838**	**258,048,367**	**274,412,577**	**276,281,794**	**287,603,436**	**292,217,808**	**316,127,276**	**325,006,332**	**353,187,986**	**382,702,245**	**414,917,766**	**450,202,956**
PASIVA (Rp 000)													
Hutang Usaha	3,083,975	2,155,661	1,300,848	1,430,438	1,517,176	1,627,619	2,068,322	2,576,722	3,095,378	3,279,719	3,448,610	3,628,924	3,812,014
Hutang Lancar Lainnya	1,624,892	1,213,123	1,180,883	1,251,634	1,327,529	1,424,167	1,809,782	2,254,632	2,708,456	2,869,754	3,017,534	3,175,308	3,335,512
Hutang Pajak	519,515	264,423	320,375	4,936,523	9,909,099	14,253,265	11,858,563	15,690,601	12,325,320	17,294,567	19,193,814	20,567,541	21,898,998
Pinjaman Jangka Panjang Jatuh Tempo	17,510,760	35,494,879	26,448,943	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390
Hutang Lancar	**22,739,142**	**39,128,086**	**29,251,049**	**34,934,985**	**40,070,194**	**44,621,440**	**43,053,056**	**47,838,345**	**45,445,543**	**50,760,430**	**52,976,347**	**54,688,163**	**56,362,914**
Pinjaman Jangka Panjang	243,591,339	219,056,120	327,796,675	300,480,286	273,163,896	245,847,506	218,531,117	191,214,727	163,898,338	136,581,948	109,265,558	81,949,169	54,632,779
Kewajiban Lainnya	13,060,378	13,450,230	19,419,182	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125	45,868,125
Hutang Jangka Panjang	**256,651,717**	**232,506,349**	**347,215,858**	**346,348,411**	**319,032,021**	**291,715,631**	**264,399,242**	**237,082,852**	**209,766,463**	**182,450,073**	**155,133,683**	**127,817,294**	**100,500,904**
Uang Jaminan Langganan/Deff. SR baru	1,899,808	2,062,668	2,270,578	2,270,578	3,170,578	3,970,578	9,770,578	19,570,578	29,370,578	39,170,578	48,970,578	58,770,578	68,570,578
Penyertaan Pemerintah YBDS	0	0	0	0	0	0	0	0	0	0	0	0	0
Hutang Lain-Lain	**1,899,808**	**2,062,668**	**2,270,578**	**2,270,578**	**3,170,578**	**3,970,578**	**9,770,578**	**19,570,578**	**29,370,578**	**39,170,578**	**48,970,578**	**58,770,578**	**68,570,578**
Total Hutang	**281,290,667**	**273,697,104**	**378,737,485**	**383,553,974**	**362,272,794**	**340,307,650**	**317,222,876**	**304,491,775**	**284,582,584**	**272,381,081**	**257,080,608**	**241,276,035**	**225,434,396**
Kekayaan PEMDA Yg Dipisahkan	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618	3,224,618
Penyertaan Pemerintah Pusat	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143	40,184,143
Selisih Penilaian Kembali Aktiva Tetap	0	0	0	0	0	0	0	0	0	0	0	0	0
Modal Penyertaan Lain-lain	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448	4,702,448
Dana Cadangan	2,490,592	2,490,592	7,239,156	(168,800,327)	(157,252,606)	(134,102,208)	(100,815,424)	(73,116,277)	(36,475,708)	(7,687,461)	32,695,695	77,510,427	125,530,523
Laba Rugi Thn Berjalan	(153,305,231)	(147,914,067)	(176,039,484)	11,547,721	23,150,398	33,286,785	27,699,147	36,640,568	28,788,247	40,383,156	44,814,732	48,020,095	51,126,828
Modal dan Cadangan	**(102,703,431)**	**(97,312,266)**	**(120,689,118)**	**(109,141,397)**	**(85,990,999)**	**(52,704,215)**	**(25,005,068)**	**11,635,501**	**40,423,748**	**80,806,904**	**125,621,636**	**173,641,732**	**224,768,560**
Total Pasiva	**178,587,237**	**176,384,838**	**258,048,367**	**274,412,577**	**276,281,794**	**287,603,436**	**292,217,808**	**316,127,276**	**325,006,332**	**353,187,986**	**382,702,245**	**414,917,766**	**450,202,956**

9. PDAM KOTA BANDUNG FINANCIAL PROJECTION – CASH FLOW STATEMENT

PDAM KOTA BANDUNG

Perputaran Kas

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SUMBER DANA (Rp 000)													
Laba (Rugi) Bersih Sblm Dep. & Bunga Dikurangi Pajak	24,724,649	19,128,105	16,643,991	42,943,708	52,395,979	60,429,029	53,440,010	60,195,800	50,664,847	59,975,140	62,472,400	63,790,511	65,012,074
Laba (Rugi) Bersih Non Operasi	2,192,172	2,571,299	1,595,178	3,230,076	3,804,170	4,331,197	4,272,266	4,997,587	5,070,908	5,750,212	6,079,217	6,361,158	6,641,017
Laba (Rugi) Bersih	**26,916,821**	**21,699,403**	**18,239,169**	**46,173,784**	**56,200,150**	**64,760,226**	**57,712,277**	**65,193,387**	**55,735,755**	**65,725,353**	**68,551,617**	**70,151,669**	**71,653,091**
Uang Jaminan Pelanggan	159,653	162,860	207,910	0	900,000	800,000	5,800,000	9,800,000	9,800,000	9,800,000	9,800,000	9,800,000	9,800,000
Total Hibah	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Investasi Perluasan	0	0	0	0	0	0	0	0	0	0	0	0	0
Investasi Penyehatan	0	0	0	0	0	0	0	0	0	0	0	0	0
Suntikan Penyertaan oleh Pemda	0	0	0	0	0	0	0	0	0	0	0	0	0
Suntikan Penyertaan oleh Karyawan	0	0	0	0	0	0	0	0	0	0	0	0	0
Suntikan Penyertaan	0	0	0	0	0	0	0	0	0	0	0	0	0
Suntikan Modal Sendiri	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Modal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Pinjaman & Kerjasama Dgn Swasta	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Pinjaman untuk investasi penyehatan	0	0	0	0	0	0	0	0	0	0	0	0	0
Pinjaman untuk investasi perluasan	0	0	0	0	0	0	0	0	0	0	0	0	0
Beban Bunga Masa Tenggang yang Ditangguhkan	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Sumber Dana	**27,076,474**	**21,862,263**	**18,447,079**	**46,173,784**	**57,100,150**	**65,560,226**	**63,512,277**	**74,993,387**	**65,535,755**	**75,525,353**	**78,351,617**	**79,951,669**	**81,453,091**
PENGGUNAAN DANA (Rp 000)													
Investasi Penyehatan	0	0	0	0	0	0	0	0	0	0	0	0	0
Investasi Perluasan	0	0	0	21,000,000	21,000,000	21,000,000	25,000,000	25,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
Total Investasi	**0**	**0**	**0**	**21,000,000**	**21,000,000**	**21,000,000**	**25,000,000**	**25,000,000**	**20,000,000**	**20,000,000**	**20,000,000**	**20,000,000**	**20,000,000**
Investasi Rutin	0	0	0	0	0	0	0	0	0	0	0	0	0
Beban Bunga Masa Tenggang yang Ditangguhkan	0	0	0	0	0	0	0	0	0	0	0	0	0
Jumlah Pengeluaran Barang Modal	**0**	**0**	**0**	**21,000,000**	**21,000,000**	**21,000,000**	**25,000,000**	**25,000,000**	**20,000,000**	**20,000,000**	**20,000,000**	**20,000,000**	**20,000,000**
Angsuran Pokok Pinjaman	0	0	0	26,448,943	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390
Pembayaran Bunga	13,060,187	7,682,383	6,738,570	26,223,734	24,038,423	21,853,112	19,667,801	17,482,489	15,297,178	13,111,867	10,926,556	8,741,245	6,555,934
Jumlah Pembayaran	**13,060,187**	**7,682,383**	**6,738,570**	**52,672,677**	**51,354,812**	**49,169,501**	**46,984,190**	**44,798,879**	**42,613,568**	**40,428,257**	**38,242,945**	**36,057,634**	**33,872,323**
Modal Kerja diluar Kas	2,000,193	(7,491,618)	1,333,163	(3,971,866)	(2,001,208)	(1,539,245)	3,068,594	501,544	4,791,916	(1,327,285)	156,308	501,077	552,877
Perubahan Aktiva/Kewajiban Lain-Lain	21,082,129	8,195,155	68,080,418	(26,298,943)	150,000	150,000	900,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Bagian Pemda Atas Laba Bersih													
Bagian Karyawan Atas Laba Bersih													
Total Penggunaan Dana	**36,142,508**	**8,385,919**	**76,152,151**	**43,401,868**	**70,503,604**	**68,780,256**	**75,952,784**	**71,800,423**	**68,905,484**	**60,600,971**	**59,899,253**	**58,058,711**	**55,925,200**
Kenaikan (Penurunan) Dana	(9,066,034)	13,476,344	(57,705,072)	2,771,916	(13,403,454)	(3,220,030)	(12,440,508)	3,192,964	(3,369,729)	14,924,381	18,452,364	21,892,958	25,527,891
Saldo Kas (Awal Tahun)	**23,292,011**	**20,071,162**	**14,172,433**	**28,743,359**	**31,515,275**	**18,111,820**	**14,891,790**	**2,451,282**	**5,644,246**	**2,274,517**	**17,198,898**	**35,651,262**	**57,544,220**
Saldo Kas (Akhir Tahun)	**20,071,162**	**14,172,433**	**28,743,359**	**31,515,275**	**18,111,820**	**14,891,790**	**2,451,282**	**5,644,246**	**2,274,517**	**17,198,898**	**35,651,262**	**57,544,220**	**83,072,111**
Saldo Kas Min. yg diperlukan (2 bulan operasional)	**11,790,672**	**12,001,782**	**12,344,517**	**20,699,100**	**21,202,273**	**21,758,410**	**25,066,713**	**28,939,166**	**32,897,076**	**34,069,035**	**35,112,239**	**36,250,637**	**37,412,171**
Year-End Cash Balance to Minimum Cash Requirement	**3.4**	**2.4**	**4.7**	**3.0**	**1.7**	**1.4**	**0.2**	**0.4**	**0.1**	**1.0**	**2.0**	**3.2**	**4.4**

10. PDAM KOTA BANDUNG FINANCIAL PROJECTION – SUMMARY

PDAM KOTA BANDUNG

Rencana Pemantapan Kinerja Keuangan

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TARIF													
Proyeksi Kenaikan Tarif	0%	0%	0%	51%	0%	18%	0%	18%	0%	8%	0%	0%	0%
Kenaikan Tarif Rata-Rata	2%	0%	0%	38%	0%	12%	0%	12%	0%	5%	0%	0%	0%
Tarif Rata-Rata	1,995	2,042	2,014	2,783	3,177	3,546	3,576	4,005	4,041	4,258	4,275	4,273	4,270
Biaya Rata-Rata (Rp/m3)	2,328	2,422	2,407	3,615	3,680	3,752	4,155	4,515	4,855	4,771	4,677	4,604	4,541
Kebutuhan Kenaikan Tarif	17%	19%	20%	30%	16%	6%	16%	13%	20%	12%	9%	8%	6%
TEKNIK													
Jumlah Sambungan Akhir	143,669	143,195	143,003	144,003	145,003	146,003	152,003	162,003	172,003	182,003	192,003	202,003	212,003
Tambahan Jumlah Sambungan	(2,285)	(474)	(192)	1,000	1,000	1,000	6,000	10,000	10,000	10,000	10,000	10,000	10,000
MANAJEMEN													
Jumlah Hari Penagihan Piutang	225	960	147	98	93	90	90	87	87	86	86	86	86
Jumlah Pegawai	935	935	935	935	935	935	935	935	935	935	935	935	935
Rasio Pegawai Per 1000 Sambungan	7	7	7	6	6	6	6	6	5	5	5	5	4
INVESTASI													
Investasi Perluasan	0	0	0	21,000,000	21,000,000	21,000,000	25,000,000	25,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
STRUKTUR BIAYA													
Tenaga Kerja	37.9%	42.0%	44.0%	33.5%	30.9%	29.2%	29.5%	26.3%	26.1%	24.9%	25.0%	25.3%	25.6%
Listrik dan Bahan Bakar	5.1%	6.2%	6.0%	4.5%	3.9%	3.7%	3.5%	3.1%	2.9%	2.7%	2.6%	2.6%	2.5%
Bahan Kimia dan Bahan Pembantu	4.9%	4.6%	6.6%	5.1%	4.8%	4.6%	4.7%	4.2%	4.3%	4.1%	4.2%	4.3%	4.4%
Pemeliharaan & Biaya Bahan	11.0%	4.6%	14.0%	10.4%	9.1%	8.7%	8.9%	8.0%	8.0%	7.7%	7.7%	7.7%	7.7%
Administrasi & Umum	8.2%	9.2%	13.2%	9.7%	9.0%	8.5%	8.6%	7.6%	7.6%	7.2%	7.3%	7.3%	7.4%
Pembelian air dari PDAM lain	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	23.3%	34.2%	32.1%	31.7%	31.5%	31.4%
Biaya Langsung Usaha	**78.6%**	**89.2%**	**90.6%**	**69.9%**	**64.6%**	**61.6%**	**75.6%**	**79.7%**	**90.3%**	**86.1%**	**85.8%**	**86.1%**	**86.4%**
Depresiasi	12.7%	12.7%	11.7%	8.8%	8.2%	7.8%	8.0%	7.2%	7.1%	6.7%	6.7%	6.6%	6.6%
Bunga	19.2%	11.3%	9.8%	27.4%	21.9%	17.7%	15.2%	11.4%	9.3%	7.2%	5.7%	4.3%	3.1%
Total Biaya Operasional	**110.5%**	**113.2%**	**112.2%**	**106.1%**	**94.6%**	**87.2%**	**98.7%**	**98.3%**	**106.7%**	**100.0%**	**98.1%**	**97.0%**	**96.2%**
PENARIKAN PINJAMAN & SALDO HUTANG													
Pinjaman Eksisting	-	-	327,796,675	300,480,286	273,163,896	245,847,506	218,531,117	191,214,727	163,898,338	136,581,948	109,265,558	81,949,169	54,632,779
PEMBAYARAN TOTAL PINJAMAN													
Pokok Pinjaman	-	-	-	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390	27,316,390
Bunga + Jasa Bank + C. Charge	-	-	-	26,223,734	24,038,423	21,853,112	19,667,801	17,482,489	15,297,178	13,111,867	10,926,556	8,741,245	6,555,934
Total Pembayaran	**-**	**-**	**-**	**53,540,124**	**51,354,812**	**49,169,501**	**46,984,190**	**44,798,879**	**42,613,568**	**40,428,257**	**38,242,945**	**36,057,634**	**33,872,323**

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